Awareness and Preference towards Digital Payment Mechanisms- A Study of Customer Perceptions

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Abstract

India has shown tremendous potential for technology adoption and retail customers' (individuals) adjustment during the demonitisation period. People have shifted conveniently from traditional cash mode of payments to adopting digital payment mechanisms for all kinds of transactions. The Digital India program is a leading program of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India. To transform into a digital economy, there is a rapid endorsement of digital payments mechanisms appropriate to different sectors of the economy.

There is also a heightened awareness among individuals from all walks of life about the various modes of cash transfers available. Many people have also preferred digital payments mechanisms due to its speed and efficiency while many others feared privacy and security of their financial and confidential data. This paper brings forth the various digital payment mechanisms available to people at large. It throws light on the technological innovations in digital payments. The paper is empirical in nature wherein people's awareness and preference towards the digital payment mechanisms is captured. The paper suggests that issues such as cybercrime and illegal access to private data should be curbed through creating a central repository like that of a block-chain and enhancing the people's confidence in digital payment mechanisms.

Keywords: Digital Payment, Demonetization, Point of Sales, Customer Behavior, Non-cash Transactions.

1.1 Introduction: The Global payment landscape is growing at an amazed pace. Especially with 2015 – 2017 being considered a crunch period in the payment history. Due to the Digital technology revolution, customer expectations have increased, there is entry of nontraditional players in to the market, and there are also regulations enabling these cashless transactions. Led by the evolution of digital technologies, payments are no longer the strength of banks. Evolving customer behaviors needs, and preferences have led to new participants entering the arena at an exponential pace. Non-bank institutions are capturing the lime light and setting new consumer expectations like 'one click' payments triggering a shift in the value chain. The collective effect of all the above factors has a direct influence on the competitive advantage and value proportion of bank.

Definition of Digital Payments: The Payment and Settlement Act, 2007 has defined Digital Payments is an "electronic funds transfer" means any transfer of funds which is initiated by a person

by way of instruction, authorization or order to a bank to debit or credit an account maintained with that bank through electronic means and includes point of sale transfers, automated teller machine transactions, direct deposits or withdrawal of funds, transfers initiated by telephone, internet and, card payment.

1.2. Digital Payment in India: The pace of move to digital payments has significantly increased with the strong move towards cashless economy in India. In 2016 after demonetization decision taken by Government of India, digital payment concept has been increased a proportion. The shift wouldn't have been possible without several factors that affect the growth and creation of digitalization including an ever-increasing mobile phone penetration, low cost of service delivery, banks discouraging customers to visit branches, unorganized support the digital economy and demonetization. Due to the wide spread of internet-based shopping and banking; digital payment system grew fast in India. With technology development, many digital payment companies have been established to increase, improve and offer secure e-payment transactions.

Some of the popular modes of digital payments are as follows:

a) Banking cards

b) USSD

c) AEPS

d) UPI

e) Mobile Wallets

f) Banks Pre-paid Cards

g) Point of Sale

h) Internet Banking

i) Mobile Banking

j) Micro ATMs

All the above payments mechanisms have facilitated the penetration of technology-led devices and ease of transacting without the hassle of carrying cash. These mechanisms are described as follows:

a) Banking Cards: It is one of the old payment methods. Banking cards offer consumers more security, convenience, and control than any other payment method. The wide variety of cards available including credit, debit and prepaid cards offers enormous suppleness. These cards provide 2 aspect authentications for secure payments i.e. secure PIN and OTP. Visa Card, MasterCard and RuPay are some of the example of Bank card payment systems. Payment cards give people the power to purchase items in stores, on the Internet, through mail-order catalogues and over the telephone. They save both customers and merchants' money as well as time, and thus enable them for ease of transaction.

b) Unstructured Supplementary Service Data (USSD): USSD banking or *99# Banking is an innovative mobile banking based digital payment mode. This service allows mobile banking transactions using basic feature mobile phone and no need to have a smartphone or internet connection to use USSD banking. It is useful to check mobile balance, and other service for many financial and non-financial operations such as sending money, changing MPIN and getting MMID. *99# service has been launched to take the banking services to every common man across the country.

c) Aadhar Enabled Payment System (AEPS): AEPS is a bank run model which allows online interoperable financial transaction at PoS (Point of Sale / Micro ATM) through the Business Correspondent (BC)/Bank Mitra of any bank using the Aadhaar authentication. Customer needs only his or her Aadhaar number to pay to any business. Aadhar enabled Services provides transactions like Balance Enquiry, Cash Withdrawal, Cash Deposit, and Aadhaar to Aadhaar Funds Transfers.

d) Unified Payments Interface (UPI): Unified Payments Interface (UPI) is an arrangement that stimuluses multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and iOS mobile platform(s). It allows a customer to pay directly from a bank account to different merchants, both online and offline, without the disturbance of typing credit card details, IFSC code, or net banking/wallet passwords.

e) Mobile Wallet: A mobile wallet is a way to carry cash in digital format. Today, mobile wallet is one of the successful business ideas for start-ups. As the process of mobile wallet linking the credit card or debit card information in mobile device to mobile wallet application or we can transfer money online to mobile wallet. Instead of using physical plastic card to make purchases, people can pay with their smartphone, tablet, or smart watch. An individual's account is required to be linked to the digital wallet to load money in it. Most banks have their e-wallets and some private companies. e.g. Paytm, Freecharge, Mobikwik, Oxigen, mRuppee, Airtel Money, Jio Money, SBI Buddy, itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay etc provides this facility to customers.

f) Bank Per Paid Cards: Unlike a debit card, a prepaid card is not linked to a bank account. Generally, when consumer use a prepaid card, are spending money that have already loaded onto the card. Prepaid cards are simply a plastic alternative to carrying money around and are often called everyday cards. Prepaid cards can also be used to shop online.

g) Point of Sale (POS): A point of sale is the place where sales are done. Point of sale system is a combination of software and hardware that allows merchants to take transactions and shorten key day-to-day business operations. On a macro level, a PoS may be a mall, a market or a city. On a micro level, retailers consider a PoS to be the place where a customer finishes a transaction, such as a checkout counter. It is also known as a point of purchase.

h) **Internet Banking**: Internet banking also known as online banking, e-banking or virtual banking, is an electronic payment process that allows customers of a bank or other financial organization to conduct a range of financial transactions through the financial institution's website. It references to systems that enables bank customers to access accounts and general information on bank products and services through a personal devices and other kind of intelligent devices.

i) **Mobile Banking**: Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct diverse types of financial transactions remotely using a mobile device such as a mobile smart phones, phone or tablet. It uses software, usually called an app, provided by the banks or financial institution for the purpose. Each Bank provides its own mobile banking App for Android, Windows and iOS mobile platform(s).

j) **Micro ATM:** Micro ATM is a device that is used by a Business Correspondents (BC) to deliver basic banking services. The platform will enable Business Correspondents (who could be a local kirana shop owner and will act as 'micro ATM') to conduct instant transactions. The micro platform will enable function through low cost devices (micro ATMs) that will be connected to banks across the country.

1.3 Review of Literature: Many empirical studies have been conducted on the subject of 'Plastic Money' in India and abroad. The major emphasis of research has been on various issues i.e. usage pattern, frauds, security, new method of e-payment, etc.

Brito and Hartley (1995) in his research found that consumers prefer purchasing through credit cards because of its ease and convenience of use irrespective of its rate of interest. He said when consumers use credit cards as a mode of financing, credit cards compete with bank loans and other forms of financing.

Handelsman and Munson (1989) commented that "Switching behaviors from credit card to cash payment among ethnically diverse retail customers" shows that the credit card sales constitute an important revenue source for many retailers. Their ever-increasing use and evaluation into other forms, such as debit and electron cards, demands that retailers gain a more complete understanding of how they are used by diverse consumer segments. Particularly needed is a better understating of the propensity to switch over from credit card to cash payment and the incentive required to initiate switching.

Subhani (2011) conducted a study on the "plastic money / credit cards for prestige between now and then." The study was based on knowledge of the charisma of plastic and its impact on the choice for the use of money. The research found that the preference for the use of plastic money / credit card has several pros and cons although it is easy to use and affordable. According to the consumer behavior it is stated that plastic money is a form of motivation for a consumer to spend. The study suggests that the preference to use plastic money to have a positive relationship with the easiness of use because the principle of a credit card has been linked to usage with psychological phenomena that people tend to spend less with a credit card and spend more with the same amount of cash in hand.

George (1995), "The card majors lead the way" shows that VISA and Master Card play an important role in any international payment system. Both VISA and Master Card act guarantor of payment to merchants who are willing to accept the cards. VISA and Master card each have nearly 22000 banks all over the world as their members and handle several million transactions each day. This gives them a transaction handling capability unmatched by any individual bank. They provide a global network that allows authorization, clearing and settlement of card transactions, both of credit and debit card.

Manivannan P (2013) in his research paper "Plastic money means less payment of cash checking system" said that use of plastic money is the measure of a luxury credit card, and the need. The plastic money and the electronic payments and used by people of higher income category. The extension of this facility is not only meant for customers in urban areas or cities, but also is for customers who live in rural areas. However, today, with the development of banking industry, fixed income group also begins the use of plastic and electronic money payment systems and especially credit cards.

Price Water House Coopers, India's (2015) report explained unbanked population was at 233 million. Even for people with access to banking, the ability to use their debit or credit card is limited because there are only about 1.46 million points of sale which accept payments through cards. A study by Boston Consulting Group and Google in July noted that wallet users have already surpassed the number of mobile banking users and are three times the number of credit card users.

Torbet and Marshall (1995), "One in the eye to plastic card fraud." This study evaluates the potential use of behavioral and physiological techniques in the battle against credit card fraud in the retail environment. It discusses different techniques such as automatic speaker, dynamic signature verification, fingerprint, facial recognition, retinal and iris scanning, hand and finger geometry. Author feels that while biometric technologies have the potential to reduce plastic card fraud there are several problems which must be addressed before they can be used in retail environments, like the recognition performance, speed of use, usability, customer acceptance, device cost are considered along with industry standards for biometric devices.

1.4 Objectives of the Study: After having reviewed the literature, the authors felt that there is a need to examine the awareness levels of people about various digital payment mechanisms and their preference towards the same. The authors have identified the following objectives and carried out this study.

- To examine the awareness levels and opinion of customers about digital payment mechanisms.
- To study the benefits that emerge to the customers from the using the digital payment mechanisms.

1.5. Research Methodology: The study is conducted through online survey. A sample size of 200 customers across India was selected on the basis of convenience sampling. However, there was

missing data from 28 respondents that represents a response rate of 86%. The sample includes both male and female and all age group, mostly 20-40 years age group who use the digital payment mechanisms.

2.1 Findings from the Literature: India ruins a largely cash based economy with cash accounting for added than 78% of all retail payments. Compared to some other countries, like China, Mexico and Brazil, India ranks very low relating to Non-cash transactions by non-banks per capita per annum as well as number of pay points (for digital payments) per million people. The cash dependence, in turn, has impacted government's facility to widen tax compliance and improve tax revenue. Digitization of transactions is an obligation for India, it will benefit the poor, the middle class, the businesses and the nation.

Table 1.1 Non-Cash Payment Transactions

Country	Non-Cash Payment Transactions by non-banks per capita per annum	No. of Pay Points per Million of People
India	11	1.080
China	26	16.602
Mexico	32	7.189
South Africa	70	7.267
Brazil	142	25.241
UK	355	30.078
Singapore	728	31.096

(Source: NITI Ayog (Interim Report of the Committee of Officials on Digital Payment.)

Table 1.2 Digital Payments –Progress in India

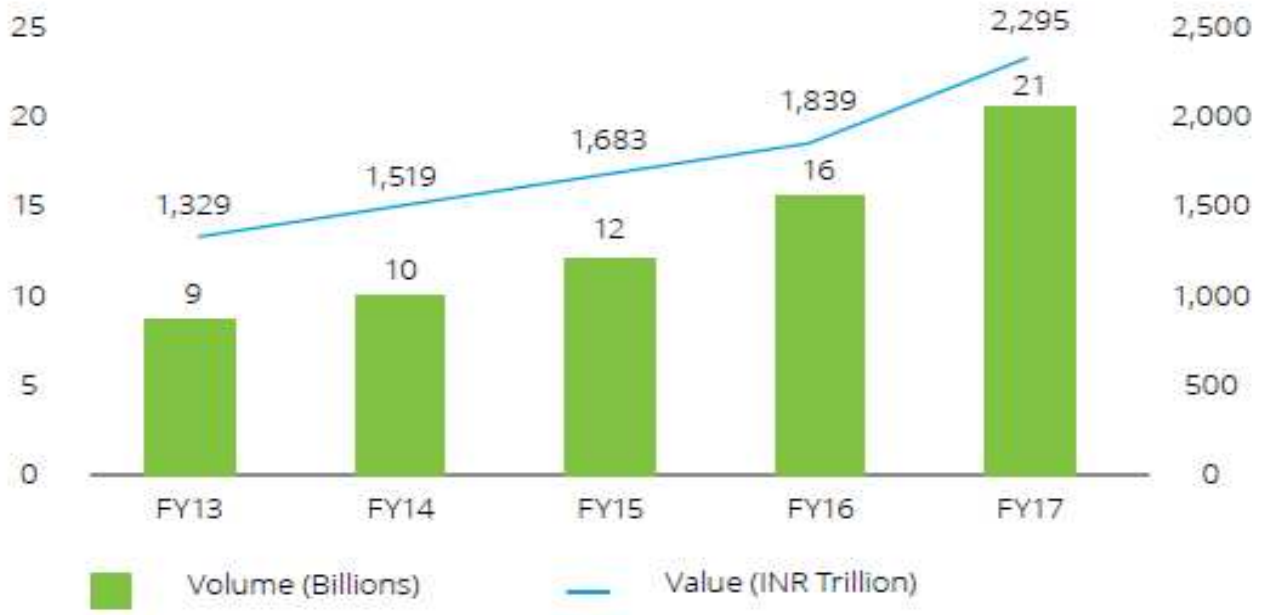
Annual Data for 2016-17 and 2015-16			
	Apr- March 2015-16	**Apr- March 2016-17**	**Growth Rate (%)**
Volume (Million)	7046.6	10928.6	55.1
Value (Billion)	1723425	2141071	24.2
Monthly Data for April 2016 and April 2017			
	April 2016	**April 2017**	**Growth Rate (%)**
Volume (Million)	1408.13	1928.48	37.0
Value (Billion)	159410.36	193423.72	21.3

(Source: Indian Economy Data from www.rbi.gov.in)

Growth Trends

April 2017: Volume of transactions – The report explains that in the month of April 2017, the total Volume of Digital Payments touched about 1.9 billion as compared to 1.4 billion in April 2016 registering a growth of 37%. So, the growth of Digital payment in India has increased tremendously.
April 2017: Value of Transactions - The below details shows that in the month of April 2017, the total value of Digital Payments touched Rs 193423.72 billion as compared to 159410.36 billion in the April 2016 registering a growth of 21.3%.

Figure 1.1 Digital Payment Transactions FY13- FY17



(Source: Deloitte Analysis of RBI data on Digital Payment Mechanisms)

As per the report the use of Digital payment in India has been increased from year 2013 to year 2017 and expecting more growth in the future.

2.2 Findings from this Study

Table 2.1 Respondents' Profile- Gender

Gender	No. of respondent	Percentage
Male	110	64%
Female	62	36%

(Source: Primary Data)

The respondent of the questionnaire with respect to Gender in which 110 are male having 642% and 62 are female i.e. 36%. The study shows that majority of customers are male we respond high than female.

Table 2.2 Respondents' Profile-Age

Age in Years	No. of respondent
Less than 20	17
20 – 30	66
30 – 40	58
Above 40	31
Total	**172**

(Source: Primary Data)

Majority of the responds are fall under group of 20 – 30 and 30 – 40 followed by above 40 years. the study clearly shows that the mentioned age group are responded on cashless payment concept.

Table 2.3 Respondents' Profile- Educational Qualification:

Gender	Below 10th	Inter	Degree	Post Graduate	Higher Studies	Total
Male	18	20	30	31	11	110
Female	8	13	16	18	7	62

(Source: Primary Data)

Study explains that people who respond on concept of cashless payment system are majority of them are educated and highly educated. It clearly shows that who are educated are mainly involving in cashless payment system.

Table 2.4 Respondents awareness and preference towards digital payments

S. No	Element	Strongly Agree	Moderately Agree	Neither/ nor	Moderately Disagree	Strongly Disagree	Total
1	Knowledge about Cashless Payment	78	53	12	17	12	172
2	Use of Cashless Payment	130	32	2	3	5	172
3	Literacy Required to use Cashless Payment	46	44	3	41	38	172
4	Cashless Payment transaction better in India	59	57	24	18	14	172
5	Easy to Operate	106	41	6	12	7	172
6	Safe to use	56	36	11	37	32	172
7	Provides Discounts	28	39	4	45	56	172
8	Reduce risk of fake currency	88	52	15	9	8	172

9	Prevent money laundering	66	62	7	32	5	172
10	Reduce corruption	78	53	12	17	12	172
11	Economy Growth	45	44	3	49	31	172
12	Cyber Crime	92	54	8	12	6	172
13	Transparency	69	62	4	20	17	172
14	Increase in Internet fraud	94	34	12	18	14	172
15	Support Cashless Payment	87	56	6	15	8	172

(Source: Primary Data)

Major Findings of the Study

- The research study explains that majority of customers has good knowledge on cashless payment system in India.
- Study clearly shows that now a day's majority are people are performing cashless payment transaction in India. Most of them are educated as graduate and post graduate people.
- Also responded felt that cashless payment system is good for Indian condition.
- Majority of responded felt that cashless payment transaction is very easy comparative to traditional payment system.
- Responded felt that cashless payment is safe and security at the same time almost all the same number of responded felt that it is not secure.
- Study shows that Cashless payment won't give better discount in terms of payment transactions.
- Responded felt that due to cashless payment reduces fake currency, prevent money laundering, transparency and also reduce corruption.
- Study shows that cashless payment transactions will help in economic growth but not effectively.
- Cashless payment creates internet frauds.
- Finally, majority of customers supports the cashless payment transactions in India.

Study Implications

On the basis of this research, Cordless payment transaction is good in India. It helps to fight against corruption, money laundering, terrorism but one biggest problem in the working of cashless economy in India is increases cybercrime and illegal access to primary data. For card payment system to grow, it is essential that there is win-win situation and creation of value for all the stakeholders. The Social Influence, Security and Privacy, Facilitating Condition, Information Technology, Willingness to pay more to match with the customer's perception. Cashless transactions in must be pleasing and attractive to both males and females. The cashless transactions should be made convenient for customers to explore and handle it very easily. India is emerging as a cashless economy so that customers are encouraged and motivated to make the cashless transactions. This study was limited to only internet users. Future research should cover either whole country or a significant number of large and small cities to have a broader outlook of customer's Perception

toward in a cashless economy in India. Future research should be conducted using a relatively large sample and also growth the size of the questionnaire and more emphasis on the insights of cash and cashless transactions.

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