

# A Study on Customer Insight Towards UPI (Unified Payment Interface) - An Advancement of Mobile Payment System

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**Abstract:** Digitization and Go cashless scheme has been extensively pushed by the Indian government to regularize and smoothen the cash transaction after demonetization. The demonetization consequences give extraordinary growth in digital payment such as E-banking, Mobile banking, Card transaction etc. Unified Payments Interface (UPI) is one of the fastest growing digital payment system through which a user can both send and receive money through a Virtual Payment Address (VPA). Uniqueness of UPI over other digital payment methods like 24\*7 and 365 days availability, Easy and convenient to use and secure gateway attracts the customers of service sector. This research was mainly focused to study the customer perception (service sector) towards the awareness and adoption of UPI systems in Indore region. For this research primary data was collected through structured Questionnaire contains 5 point Likert scale from service sector and secondary Data collected from Government Reports, Website etc. This research concludes with aspects of awareness and adoption of UPI through comparison between gender, age and occupational data of customers. The results of this study add to our knowledge about acceptance of UPI and its usefulness in cashless and immediate transactions that influence young male customers who belongs to service sectors. The research concluded that customer of service sector is more swing towards the adoption of UPI and there is significant difference found male and female customers towards the adoption and use of UPI.

**Keywords:** UPI, VPA, Digital Payment

## 1. Introduction

Advancement in technology has changed the system of payments in India. Post Demonetization period (After 08 November 2016), has played an important role in the growth of digital payments in India. Also cashless transaction has been extensively pushed by Prime Minister Mr. Narendra Modi as part of government reforms. The number of digital transactions stood at about 11.8 billion for the first six months of this financial year, according to calculations based on data from the Reserve Bank of India and the National Payments Corporation of India.

This market of digital payments highly effected by a smart tool known as smart phones, this has become a key component of people's personal, professional and financial online life. Smart phone ecosystem made it very easy to inculcate the use of various application/technology in our day today life. Easy availability of internet connection, one touch access, secures financial transaction influence the adoption of one touch payment. Thus to optimize this benefit of smart phone and technology and to develop a platform for cashless and transparent financial transactions the Government of India developed one significant product, the "UPI" (Unified Payment Interface).

UPI is a simple payment tool created by NPCI that is based on IMPS system. UPI can operate on a smart phone and it works as an email ID for money. It facilitates virtual Payment address (VPA: A VPA is an ID, which a user creates by linking their accounts to a bank's mobile application) as a payment identifier for sending and collecting money and works on single click.

## 2. Conceptual Framework

### 2.1 History

India growing fast in the usage of Digital Payments options. With the increase in Internet usage, Digital payment is also come into existence. The payment firstly shifted from the traditional payment into Electronic Payment through Debit and Credit cards, E- Payments options through E- Banking and then further shifted to Mobile Payment through the usage of M-Payment technologies.

Digital payment is also coming in growing stage by the support of Government. After demonetization Indian Government work on Cashless Transaction Through their Campaign known as "Digital India- Power to Empower". The Expansion of Cashless India or Digital India is majorly based on four factors:

- **Advancement in technology:** Technology has been advancing at a rapid pace to deliver robust, secure and convenient payments solutions. This enables rapid delivery of payment services to large sections of the population.
- **Economical:** Digital payments allow services to be delivered at lower costs, afford greater scalability and greater ease of access. This in turn, helps in fostering economic growth and financial inclusion.
- **No more unlimited cash transactions:** Though there are several perceived benefits of transacting in cash (such as instantaneous settlement, relative anonymity, and the notion of security), government of India has put embargo on unlimited cash transactions.
- **Government initiatives:** Initiatives taken by the government have created a catalytic environment for the greater proliferation and growth of digital payments. UPI is one of the best examples of it, the advancement in

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technology and adoption of smart phones has motivated Indian customers to accept the virtual payment system.

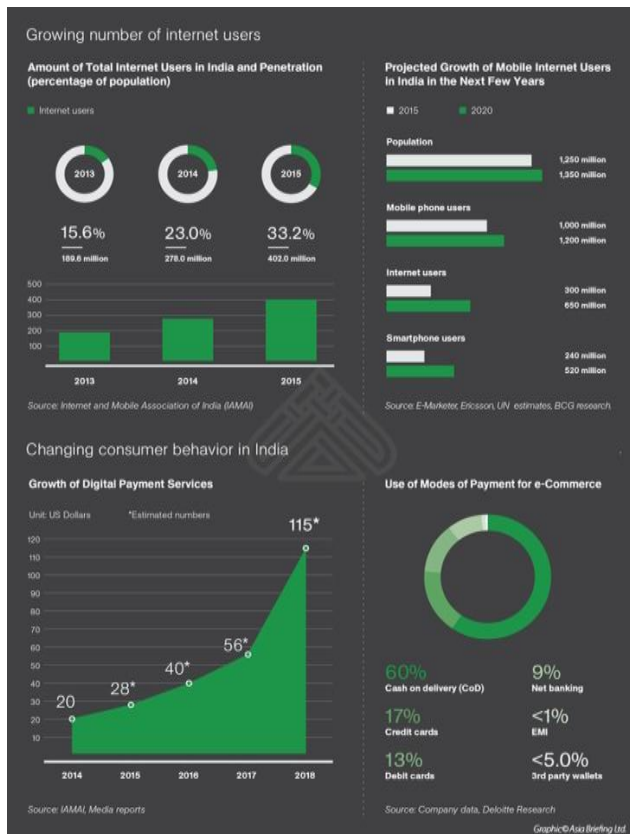


Figure 1

Source: <https://www.india-briefing.com/news/growth-of-digital-payments-systems-in-india-14797.html/>

**Introduction of UPI (Unified payment Interface)**

Unified Payments Interface (UPI) is a digital payment system through which a user can both send and receive money through a Virtual Payment Address (VPA). The money will be directly debited from the customer's bank account. It is a system that powers 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.

National Payments Corporation of India (NPCI), the umbrella organization for all retail payment systems in India has taken up a new initiative of implementing "Unified Payment Interface" to simplify and provide a single interface across all systems. Banks have started to upload their UPI enabled Apps on Google Play store from 25th August, 2016 onwards.

**Uniqueness of UPI than other digital payment methods:**

- Immediate money transfer through mobile device round the clock 24\*7 and 365 days.
- Single mobile application for accessing different bank accounts.
- Virtual address of the customer for Pull & Push provides for incremental security with the customer not required to enter the details such as Card no, Account number; IFSC etc.

- Bill Sharing with friends and opportunity to earn reward points
- Best answer to Cash on Delivery hassle, running to an ATM or rendering exact amount.
- Utility Bill Payments, Over the Counter Payments, Barcode (Scan and Pay) based payments.
- Donations, Collections, Disbursements Scalable.

**Different Apps used UPI Feature in India:**

Below is the list of App that provides UPI Feature:

**Table 1:** List of Popular UPI Application available in India

PhonePe	Paytm	BHIM app	MobiKwik
Airtel Payments Bank	Google Tez	Uber	Yono
SBI Pay	iMobile	Axis Pay	BOB UPI

**3. Literature Review**

- BabitaSingla, Manish Bansal (2015) in their research found that the shoppers are happy with plastic use, and the non-platinum card clients are fascinated to utilize the card for buys and mean to utilize the card in not so distant future. However the banks and other financial institutions are motivating the use of plastic card.
- KhuramShafiq and Khalil Ahmad (2015) Is plastic Money Matter for Consumer Buying Behavior? This examination gives the affirming data since buyers feel good in spending through plastic cash as easy access of money, no cash carrying risks and reward shopping are the major factors that plays important role behind it.
- Rouibah (2015) showed that poor security, lack of trust, fear of failure, high charges and poor familiarity were the major constraints that affected payments. Besides, security features of internet, banking facilities, privacy and quality of services were also affecting adoption of e-payments.
- Rathore (2016) stated that digital payment using wallet was highly convenient for consumers in purchasing products through online without physical movements across places.
- Dr. Stitch ShewtaRathore (2016) "Appropriation of Cashless transactions By Consumers" her investigations disclose to us computerized wallets are rapidly getting to be standard method of online installment. Customers are embracing advanced wallets at end unfathomably quick pace, to a great extent because of comfort and convenience.
- RoopaliBatra , NehaKalra (2016) "Are Digital wallets The Newcurrency?" her investigations let us know in a period of digitalization, the examination intends to contemplate the client recognition, utilization design inclinations and fulfillment level with respect to advanced wallets in view of an investigation of 52 respondents. It additionally recognizes the hindrances and difficulties to the selection of the same. The outcomes demonstrate that there exists a tremendous undiscovered market for computerized wallets both regarding expanding mindfulness and also its use.
- K. C. Balaji and K. Balaji (2016)"A Study On Demonetization And Its Impact On Cashless Transactions" considered that the development of the

cashless exchange framework is achieving new statures. Individuals tend to move to cashless exchanges. It is on the right track to state that the cashless framework is a prerequisite as well as a requirement for the general public.

- KunalTaheam, Rahul Sharma and saurabhGoswami (2016) "Drivers Of Digital Wallet Usage: Implications For Leveraging Digital Marketing" The outcomes from this investigation highlighted on various elements that inspired individuals to utilize computerized wallets for making installments. Individuals in Punjab have been found have been discovered utilizing advanced wallets because of the intentions of controllability and security, societal impact and helpfulness and requirement for execution improvement.
- Singh (2017) concluded that there was significant difference between education of consumers and adoption of digital payment. The perception of consumers for digital payment had positive and significant effect on adoption of digital payment among consumers.

**Objective**

- 1) To study the awareness of UPI system in customers of Indore region.
- 2) To study the adoption of UPI system in customers of Indore region.

**Research Methodology**

**Data Collection-** Primary Data Collected through structured Questionnaire. Secondary Data collected from Government Reports, Website etc.

**Scale &Tools for Analysis**

Nominal Scale was used in the study to import the collected responses in SPSS 20. Cronbach’s Alpha test was used to find the reliability of the data. So the data is appropriate and found reliable for testing the hypothesis. Independent T- test & Frequency analysis was found to be the most appropriate statistical tool finds the answer for research objectives.

**The following research hypothesis was framed as null hypothesis.**

**Hypothesis**

H1: There is a significant difference in adoption of UPI system among the male and female customers.

H2: There is a significant difference in adoption of UPI system among Business sector and service sector customers.

H3: There is a significant difference in adoption of UPI system between young customer, adult customer and senior citizens.

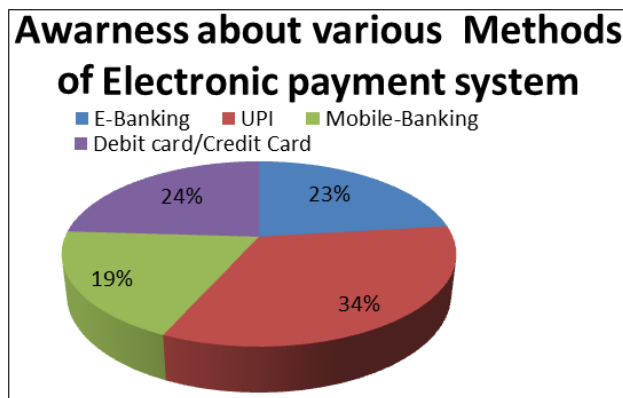
**4. Analysis and result**

**4.1 Analysis of Awareness of UPI systems**

Table 2 shows the study on respondent about the awareness of various electronic payment systems.

**Table 2:** Various electronic payment systems

Electronic payment system	Percentage	No. of Respondent
E-Banking	23	24
UPI	34	35
Mobile-Banking	19	20
Debit card/Credit Card	24	24
Total	100	103



**Chart 1**

The above chart shows that around 35 respondents out of 104 know about the UPI payment methods so we can state that the awareness about the UPI payment methods is 34%.

**Analysis of Adoption of UPI systems**

The following analysis represents the willingness of respondents to adopt UPI services.

**Table 3:** Adoption of UPI services

S. No	Parameters	Responses		Percentage	Total respondents
		Strongly Agree	Agree		
Q.1	UPI provides a convenient way of Payment	32	47	77	103
Q.2	UPI Facilitates transfers and payments from any point	32	51	81	103
Q.3	Cashless payments options gives you more discounts/cash back rewards	36	50	83	103
Q.4	Provides flexibility and easy tracking of spending	16	66	80	103
Q.5	Denomination of currency and advertising about UPI motivates you to adopt this system	35	49	82	103

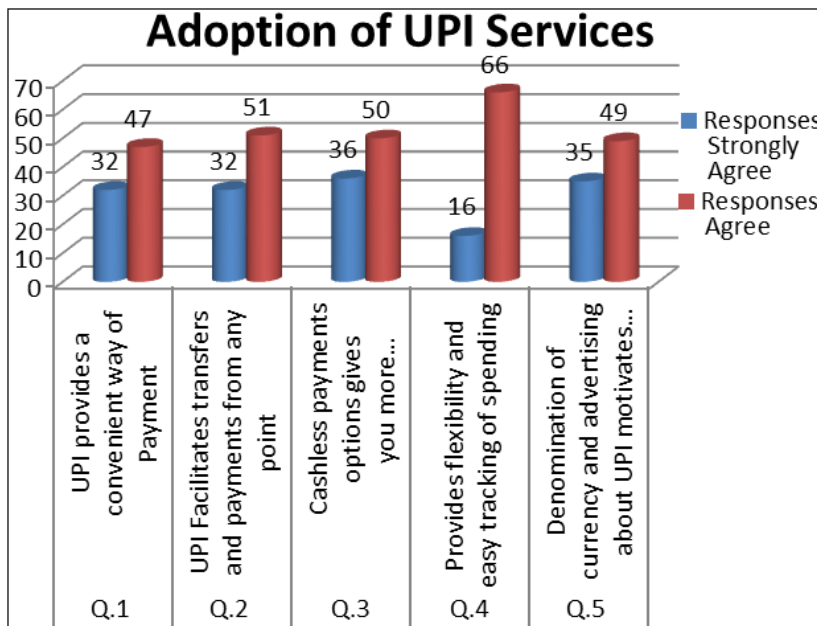


Chart 2

**Hypothesis testing**

H1: There is a significant difference in adoption of UPI system among the male and female customers.

**Table 4:** t-Test: Two-Sample (male and Female)

	Male	Female
Mean	4.146031746	3.92
Variance	0.090588838	0.128820513
Observations	63	40
Hypothesized Mean Difference	0	
Df	73	
t Stat	3.311689506	
P(T<=t) one-tail	0.000722005	
t Critical one-tail	1.665996224	

From above table, it can be seen that the result of t test is significant and indicates that adoption of UPI system differs significantly in male and female. The result of analysis also shows, the absolute obtained T (cal) (3.311) value is more than absolute critical value of t (tab) (1.66), which implies that male and female differs significantly in the use UPI SYSTEMS and the hypothesis is accepted.

H2: There is a significant difference in adoption of UPI system among Business sector and service sector customers.

**Table 6:** t-Test: Two-Sample (Service class and Business Class)

	Service	Business
Mean	4.1	4.068571
Variance	0.143529	0.084571
Observations	52	35
Hypothesized Mean Difference	0	
Df	83	
t Stat	0.436824	
P(T<=t) one-tail	0.331687	
t Critical one-tail	1.66342	

the result of t test is significant and the absolute obtained value of t(cal) (0.436) is less than absolute critical value of t (tab) (1.66), which implies that business class customers and services class customers differs significantly with

respect to the use of UPI systems . Hence the hypothesis is accepted.

H3: There is a significant difference in adoption of UPI system between young customers, adult customer.

**Table 8**

t-Test: Two-Sample (Young and Adult)		
	Young	Adult
Mean	4.033333333	4.102702703
Variance	0.11025641	0.128048048
Observations	66	37
Hypothesized Mean Difference	0	
Df	70	
t Stat	-0.968397438	
P(T<=t) two-tail	0.33618003	
t Critical two-tail	1.994437112	

From the above it can be seen that the result of T test is significant and indicates age group significantly affects the use of UPI SYSTEMS. The result of analysis shows, the absolute calculated value of t(cal)(0.968) calculated is less than Critical value of t(tab) (1.99), which implies that respondents of young age group and old age group differs significantly in the adoption of UPI system hence the hypothesis is accepted.

**5. Finding**

Cronbach’s Alpha test Result: Reliability test in SPSS 20. Result in 0.849, which is higher than 0.7 acceptable ranges. So the data is appropriate and found reliable for testing the hypothesis.

The Discussion of frequency analysis Distribution for analyzing awareness and Adoption of UPI services among respondents is as under-

**Adoption of UPI services** (Generated by Survey): this Dimension will come from the response of following questions. Out of 103 respondent:

- a) 77% respondents Responds “UPI as a convenient way of Payment”.
- b) 81% respondents have positive view that “UPI Facilities transfers and payments”
- c) 83% respondents have positive response to the statement that “Cashless payments options gives you more Discounts/cash back rewards”.
- d) 80% respondents are agree to the point that “Provides flexibility and easy tracking of spending”.
- e) 82% respondents are agree to the point that “Denomination of currency and advertisements about
- f) UPI motivates you to adopt this system”.

The results of Hypothesis testing is as under

**Table 9**

Hypothesis	Statements	T (cal) Value	T (tab) Value	Decision
H <sub>01</sub>	There is a significant difference in adoption of UPI system among the male and female customers.	3.311	1.66	Accepted
H <sub>02</sub>	There is a significant difference in adoption of UPI system among Business sector and service sector customers.	0.436	1.66	Accepted
H <sub>03</sub>	There is a significant difference in adoption of UPI system between young customers, adult customer.	0.968	1.99	Accepted

**6. Conclusion**

UPI developed the m-payment technology by facilitating mobile phone to be used as a main payment device for giving and accepting payments. In contrast to all of payment systems it can be say that UPI is the most advanced payment system in the world. UPI payment system allows money transfer between any two bank accounts by using a smart phone. It allows a customer to pay directly from a bank account to different merchants, both online and offline, without the hassle of typing credit card details, IFSC code, or net banking/wallet passwords. It aims to simplify and provide a single interface to money transfers easy, quick and hassle free. These features of UPI motivates the respondents of service sectors to adopt the tool and the above study revealed that there also a significant difference found between the gender towards the adoption of UPI. The use of smart phones, the availability of an online verifiable identity, universal access to banking and the introduction of biometric sensors in phones will proactively encourage UPI Transactions and findings revealed that the respondent have positive attitude towards the UPI transaction for ushering in a less-cash society in India.

**References**

[1] Anupama Sharma (2012), “Plastic card frauds and the countermeasures: Towards a safer payment mechanism”, International Journal of Research in Commerce, It & Management, Vol. 2, No. 4. 2.

[2] Ashish Das, and Rakhi Agarwal, (2010) Cashless Payment System in India- A Roadmap Technical Report 2010

[3] Bansil Patel and Urvi Amin (2012), “Plastic Money: Roadmap Towards Cash Less Society”, Paripex Indian Journal Of Research, Vol. 1, No. 11, ISSN 2250-1991.

[4] Babita Singla, Manish Bansal (2015) “Consumers Behavior Towards Debit Card Payment Mode While Shopping At Retail Stores” An International Journal of Engineering Sciences, December 2015, Vol. 16 ISSN: 2229-6913 (Print), ISSN: 2320-0332

[5] Bappaditya Mukhopadhyay (2016) “Role of MFIs in Financial Inclusion” Review of Market Integration, 2011, vol. 3, issue 3, pages 243-286

6. Dahlberg, T., Mallat, N., Ondrus, J., & Zmijewska, A. (2008).

[6] K. C. Balaji and K. Balaji (2016) “A Study On Demonetization and Its Impact on Cashless Transactions “International Journal of Advanced Scientific Research & Development ... Vol. 04, Iss. 03, Ver. I, Mar' 2017, pp. 58 – 64

[7] Khuram Shafiq and Khalil Ahmad (2015) Is plastic Money Matter for on Consumer Buying Behavior, World Applied Sciences Journal, 23(1), 2013.

[8] Dr. Stith Shewta Rathore (2016) "Appropriation Of Cashless transactions By Consumers" Issue 4, December 2007, Pages 413–432

[9] Roopali Batra, Neha Kalra, “Are Digital Wallets The New Currency?”, Apeejay Journal of Management and Technology, Vol 11, No 1, January 2016

[10] Kunal Taheam, R. S. (2016, January). Drivers of Digital Wallet Usage: Implications for Leveraging Digital Marketing. IJER Serial Publications, 13 (1), 175-187

[11] Taheam, K., Sharma, R., & Goswami, S. (2016). Drivers of Digital Wallet Usage: Implications for Leveraging Digital Marketing. International Journal of Economic Research, 13(1), 175-186.

[12] [www.rbi.org.in](http://www.rbi.org.in)

[13] [www.trai.gov.in](http://www.trai.gov.in)

[14] [www.npci.org.in](http://www.npci.org.in)

[15] <https://www.india-briefing.com/news/growth-of-digital-payments-systems-in-india-14797.html/>

[16] <http://digidhan.mygov.in/pages/pdf/sbi/NPCI%20Unified%20Payment%20Interface.pdf>

[17] <http://upipayments.co.in/upi-payment-system>

[18] <http://www.icommercentral.com/open-access/study-of-consumer-perception-of-digital-payment-mode.php?aid=86419>