



# CUSTOMER'S PERCEPTION OF UPI AS A DIGITAL MODE OF PAYMENT (WITH REFERENCE TO COIMBATORE DISTRICT)

## AUTHORS

**Ms. Bugade Laxmi Arvind**, Part time Ph.D scholar, Department of Commerce, Hindusthan College of Arts and Science, Coimbatore – 28

**Dr. R. Rajesh**, Associate Professor and Head, Department of Commerce (Information Technology), Department of Commerce (Banking and Insurance), Hindusthan College of Arts and Science, Coimbatore – 28

## ABSTRACT

India has become a cashless economy with the launch of Unified Payment Interface (UPI). With this new system, our smart phones have turned into virtual debit cards and therefore it facilitates to send or receive money instantly. With the Bharat QR code, it helps us to get rid of our wallet all together. Unified Payments Interface (UPI) is an interface system that authorises multiple bank accounts into a single mobile application with several banking features, seamless fund routing and merchant payments into one. It also performs peer to peer collect request which can be paid as per requirement and convenience. Every bank provides its own UPI App for Android, Windows and iOS mobile platform.

**Keywords:** Mobile Payment, Unified Payment Interface, Digital Payments

## I. INTRODUCTION

India contributes as seventh largest economy of the world with GDP of USD \$ 2.3 trillion, for an economy of this size India is predominantly cash driven economy. Bank notes in circulation in the economy increased 17% in FY19 to Rs 21.1 trillion from Rs 18.03 trillion in FY18, the Reserve Bank of India (RBI) said in its Annual Report of 2018-19, which was released on Aug 29, 2019. High dependence

on cash brings its own set of problems of production, storage and cash management cost of currency notes, use of fake currency and most importantly lack of trail of transactions which leads to tax evasion. These problems are bound to be amplified as the economy grows. Reserve Bank of India (RBI) has taken systematic steps to promote digital payments in India and created National Payment Corporation of India (NPCI) as an umbrella organization to develop low cost retail digital payment systems. In August 2016, NPCI launched Unified Payment Interface (UPI), a next generation mobile based payment system which enables real time bank payments. UPI leverages high tele-density in India to make mobile phone as a primary payment device for both consumers and merchants and to universalize digital payments in the country<sup>1</sup>.

The National Democratic Alliance (NDA) government's massive currency culling exercise three years ago has brought India's payments system at an inflection point, where cash transactions continue to dominate. The move, simultaneously, nurtured the habit of spending through various digital platforms. In its fight against black money, counterfeit currency and terror financing, the Narendra Modi-led government on 8 November, 2016 banned high-value currency notes of ₹500 and ₹1000 denomination, or 86% of the currency in circulation. The government had then said the step would boost digital payments that would make spending convenient and also increase transparency<sup>2</sup>.

The Reserve Bank of India is going to allow consumers to give an e-mandate for allowing them to make recurring payments through UPI, a move supposed to ease small digital payments which is the need of the hour for grocery shops and local stores. This facility is already available for cards and wallet systems. To initiate the facility on their payment device the customers have to provide their merchants name, time frame for recurring payments and the payment limit. More than 131 crore transactions have been processed in December alone through UPI. Since its launch in April 2016, months prior to demonetization, UPI has become India's fastest growing payment transfer interface clocking over 1 billion transactions worth around \$27 billion in the month of November 2019. The widespread adoption of the technology in India has led to various international bodies, advanced economies, and also private companies calling for the set up of similar domestic payment infrastructure in several countries such as Singapore and UAE. The coming together of new-age technology and traditional banking methodology

<sup>1</sup> MONTHLY MAGAZINE- Txnnxt published by NPCI- National Payments Corporation of India, vol 1, issue 2.

<sup>2</sup> Chuanwei Zou, Haier Liu and Ping Xie, *Internet Finance in China: Introduction and Practical Approaches*, edition 2015, University of Michigan.

has become a win-win situation for the financial ecosystem, offering more options to customers in the payments space. Digital payments witnessed a massive growth post demonetization, especially with the government and the banking regulator's attempt to make India a 'less-cash economy'<sup>3</sup>.

"Demonetisation brought about a springboard effect in terms of growth for Fintech in India. In a country which was primarily cash dependent, the pre-demonetisation period witnessed slow adoption of digital payments," said Stamped Swain, chief executive officer and co-founder of payment gateway firm Instamojo. The government's move to scrap currency encouraged adoption of digital payments, and also opened the doors for several start ups such as Paytm, Mobikwik, among others. Before 2016, debit cards were mainly used to withdraw cash from ATMs but immediately after the currency note ban there was a surge in debit card payment at merchants. Use of prepaid payment instruments such as wallets and Unified Payments Interface (UPI), and mobile banking, picked up rapidly. Other platforms such as utilities payment portal Bharat Bill Payment System (BBPS), also developed by NPCI, were launched to make payments simple, hassle-free and mobile friendly. UPI uses systems, such as Immediate Payment Service (IMPS) and Aadhaar Enabled Payment System (AEPS), to ensure settlement across accounts without any interruption. It facilitates push (pay) and pull (receive) transactions and even works for barcode payments, as well as for many recurring payments such as utility bills, school fees and other subscriptions fees<sup>4</sup>.

## II. STATEMENT OF THE PROBLEM

In the cashless economy UPI plays a significant role in everyone's life for paying and receiving cash through various mobile applications. Instant cash transactions are easily possible through UPI option, but there also arose some fraudulent activities which are not significantly considered by many users. There is an enormous growth in the use of digital payment systems across the country with many organizations offering online banking and money transfer services. Safety and security of transactions towards digital transactions are the major concerns and threats which can hinder the use of application. Here this study is carried out to know the awareness of UPI applications, customer satisfaction towards UPI payment and also the awareness of general public towards such fraudulent activities<sup>5</sup>.

<sup>3</sup> Mahmood Shah and Steve Clarked, 'E-Banking Management:Issues, Solutions and Strategies's',edition 2009, Information science refernce, UK.

<sup>4</sup> R.Meenakshi, U K Sudha Nayak, R Couvery & M Girija, 'Research Methodology', S.Chand, Revised edition 2003

<sup>5</sup> Salil Panchal and Manu Balachandran (2018) Drivers of Digital Wallet Usage: Implications for Leveraging Digital Marketing. International Journal of Economic Research 13: 175-186.

### III. NEED OF THE STUDY

Unified payment interface is the one of the recent innovation introduced by National Payment Corporation of India (NPCI). After the implementation of UPI there is a tremendous change in the payment method. Hence it is important to know the benefits and drawback of UPI services and customer perception towards new innovation adopted by the national payment corporation. In this study the researcher aims to identify the customer satisfaction level towards unified payment interface and to know the awareness of fraudulent activities among the users.

### IV. OBJECTIVES OF THE STUDY

The objectives of the study are

- To study the demographic factors of the respondents.
- To know the awareness level of UPI payment among the respondents.
- To study the frequency in use of UPI payments.
- To study the awareness of fraudulent activities among the users

### V. SCOPE OF THE STUDY

The study has been undertaken to know about the UPI payment in the Coimbatore district. UPI is an abstraction over standard payment transfer mechanism like IMPS. It helps to hide sensitive account information along with consumer. Also, UPI is very fast and does not involve the costs like debit card or net banking.

### VI. REVIEW OF LITERATURE

**Roshna Thomas and Abhijeet Chatterjee (2017)** UPI is indeed a revolution in the Indian economy. How-ever its success depends on various factors. Financial inclusion or access to banking services is a prerequisite for growth of UPI which is being facilitated by Pradhan Mantri Jan Dhan Yojana (PMJDY) and the increasing smart phone penetration. The ability of banks to capitalize on customer faith, effectively promoting UPI and facing competition from mobile wallets will also be the deciding factors. If the banks fail to develop an effective front-end platform then UPI could fail<sup>6</sup>.

**Salil Panchal and Manu Balachandran (2018)** UPI's success is a proof that India is moving mountains to user in a less-cash economy. But the scope of BHIM must be widened. BHIM should add more categories to the payment application for user engagement. UPI is the —Refined and finished product of

<sup>6</sup> Roshna Thomas and Abhijeet Chatterjee (2017) 'Adoption of Digital Wallet by Consumers'. *BVIMSR's Journal of Management Research* 8: 69.

IMPS and it is forecasted that at some International Journal for Research in Engineering Application & Management (IJREAM), it could get merged with the NEFT system, operated under RBI guidelines<sup>7</sup>.

**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 instal--ment. Customers are embracing advanced wallets at end unfathomably quick pace, to a great extent because of comfort and convenience<sup>8</sup>.

## VII. RESEARCH METHODOLOGY

**Table 1**  
**Distribution on Research methodology**

Sl.No	Research Components	Description of the study
1	Type of research	Descriptive research
2	Research approach	Survey study method
3	Research instrument	Interview Schedule
4	Data source	Primary and Secondary
5	Sampling procedure	Purposive Sampling
6	Sampling method	Stratified Convenient sampling method
7	Sample unit	Private Sector Bank (10)
8	Sampling size	Customers of banks (250)
9	Sample area	Coimbatore District
10	Statistical tools	1. Percentage analysis
		2. Weighted Average Score(WAS) - Mean and SD
		3. Chi-Square
		4. ANOVA

**Source: Secondary Data**

## VIII. LIMITATIONS OF THE STUDY

- ❖ The study is confined to the respondents (customers) of Private sector banks in Coimbatore district.
- ❖ The study is limited only to the Private banks and all other sectors are ignored and not taken for the study, so limitation from generalisation takes places in this study.
- ❖ The primary data were collected through interview method which is subjected to recall bias.

<sup>7</sup> Salil Panchal and Manu Balachandran (2018) Drivers of Digital Wallet Usage: Implications for Leveraging Digital Marketing. *International Journal of Economic Research* 13: 175-186.

<sup>8</sup> Dr. Stitch Shewta Rathore (2016) "Appropriation Of Cashless transactions By Consumers" Issue 4, December 2007, Pages 413-432 11

**IX. FRAMED HYPOTHESIS**

- ❖ **H<sub>0</sub>:** There is no significant relationship between the dependent and independent variables
- ❖ **H<sub>0</sub>:** There is no significant relationship between the dependent and dependent variables

**Table 2**  
**Distribution on Sample size**

Sl.no	Type of bank	Sample size
1.	AXIS Bank	25
9.	Cosmos Bank	15
3.	Federal Bank	35
4.	HDFC Bank	15
5.	ICICI Bank	35
6.	IDBI Bank	15
2.	IDFC Bank	25
10.	IndusInd Bank	35
7.	Karur Vysya Bank	25
8.	Lakshmi Vilas Bank	25
<b>Total</b>		<b>250</b>

Source: Secondary Data

**X. ANALYSIS OF DATA**

**Table 3**  
**Distribution on demographic profile of the respondents (Majority)**

Sl.no	Particulars	Majority	Number of respondents	Percentage
1.	Gender	Female	130	52
2.	Educational qualification	Diploma/Degree	125	50
3.	Occupation	Employees	110	44
4.	Monthly income	Below 50,000	120	48
5.	Place of residence	Urban	156	62

Source: Primary Data

**Table 4**  
**Distribution on sources of awareness of UPI payment**

Sl.no	Sources	No. of respondents	Percentage (%)
1.	Television	41	16
2.	Newspapers	20	8
3.	Friends	110	44
4.	Internet	76	30
5.	Others	3	2
<b>Total</b>		<b>250</b>	<b>100</b>

Source: Primary Data

**Table 5**  
**Distribution on the Transaction value of the respondents**

Sl.no	Transaction value	No. of respondents	Percentage (%)
1.	Rs.1 – Rs.1000	52	21
2.	Rs.1000 – Rs.5000	130	52
3.	Rs.5000 – Rs.10000	62	25
4.	Above Rs.10000	6	2
<b>Total</b>		<b>250</b>	<b>100</b>

Source: Primary Data

**Table 6**  
**Distribution on satisfaction level on UPI payment**

Sl.no	Level of satisfaction	No. of respondents	Percentage (%)
1.	Highly satisfied	42	17
2.	Satisfied	158	63
3.	Normal	32	13
4.	Dissatisfied	18	7
5.	Highly dissatisfied	-	--
	<b>Total</b>	<b>250</b>	<b>100</b>

Source: Primary Data

**Table 7**  
**Distribution on frequency of UPI payment**

Sl.no	Frequency	No. of respondents	Percentage (%)
1.	Daily	--	--
2.	Whenever needed	170	68
3.	Once in a week	55	22
4.	Once in a month	20	8
5.	Occasionally	5	2
	<b>Total</b>	<b>250</b>	<b>100</b>

Source: Primary Data

**Table 8**  
**Distribution on other modes of payment applications used**

Sl.no	Frequency	No. of respondents	Percentage (%)
1.	Google pay	149	60
2.	Pay TM	59	24
3.	Amazon pay	42	16
	<b>Total</b>	<b>250</b>	<b>100</b>

Source: Primary Data

**Table 9**  
**Distribution on Challenges faced in UPI payment**

Sl.no	Challenges	Yes		No	
			(%)		(%)
1.	Fraud and charge backs	21	8	229	92
2.	Cross-border transaction	40	16	210	84
3.	Card data security	119	48	131	52
4.	Multi-currency and payment Methods	30	12	220	88
5.	Technical integration	52	21	198	79

Source: Primary Data

**Table 10**  
**Distribution on Problems faced in UPI**

Sl.no	Problems faced	Mean Score	Mean Rank
1.	Not providing information	3.2	1
2.	Lack of security in transaction	4.13	3
3.	Not giving fast response	3.83	2
4.	Leaving the operation unfinished	4.32	4
5.	Waiting for long time for conducting of transaction	4.89	5
6.	Too many steps in processing transaction	5.02	6
7.	Lack of clear guidelines	5.21	7
8.	Login / sign off are not easy	5.38	8

Source: Primary Data

**Table 11**  
**Distribution on ANOVA and Chi-Square test (factors influencing UPI)**

Sl.no	Particulars		Sum of square	D.f	Mean square	F	Sig
1.	Free fund transfer	Between Group	2.122	1	2.122	2.346	.129
		Within Group	88.628	98	0.904		
2.	Useful for small transaction	Between Group	0.141	1	0.141	0.315	.576
		Within Group	43.969	98	0.449		
3.	Privacy of bank account	Between Group	0.060	1	0.060	0.071	.791
		Within Group	83.180	98	0.849		
4.	More secure	Between Group	0.039	1	0.039	0.032	.858
		Within Group	120.151	98	1.226		
5.	Instant Transfer	Between Group	11.580	1	11.580	7.457	.007
		Within Group	152.180	98	1.553		
6.	Rewards and Cash backs	Between Group	13.184	1	13.184	10.269	.002
		Within Group	125.81	98	1.284		

Source: Computed Data

**Table 12**  
**Distribution on Chi-square test (Gender and Challenges faced)**

	Values	D.f	Asymptotic. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.152	1	.697		
Continuity Correction <sup>b</sup>	.023	1	.879		
Likelihood Ratio	.151	1	.698		
Fisher's Exact Test				.813	.435
Linear-by-Linear Association	.151	1	.698		
N of Valid Cases <sup>b</sup>					<b>250</b>

Source: Computed Data

**NB:** a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.18. b. Computed only for a 2x2 table

## XI. FINDINGS OF THE STUDY

### • Profile of respondents

- For gender it was found that Majority (52%) of the respondents of the study were female respondents and the remaining (48%) of the respondents were male.

- For education qualification it was found that 10% of the respondents have an educational qualification of school level, 50% of the respondents were Diploma/Degree holders, 36% of the respondents were professionals and 4% of the respondents were on the category of others on educational qualification. Majority (50%) of the respondents have an educational qualification of Diploma/Degree.

- For occupation it was found that 14% of the respondents were student, 10% of the respondents were farmer/agriculturist, 44% of the respondents were employee, 28% of the respondents were doing business and 4% of the respondents were on the other occupational status. Majority (44%) of the respondents were employees



- For monthly income it was found that 48% of the respondents had a monthly income of below Rs. 50,000, 15% of the respondents had a monthly income between Rs. 50,000 – Rs. 75,000, 34% of the respondents had a monthly income between Rs. 75,000 – Rs. 1,00,000 and 3% of the respondents had a monthly income of above Rs. 1,00,000. Majority (48%) of the respondents had a monthly salary of below Rs. 50,000.

- For place of residence it was found that 38% of the respondents were from rural area and 62% of the respondents were from urban area. Majority (62%) of the respondents were on urban area.

- **Source of awareness:** It was evident that for sources of awareness out of 250 respondents 16% of the respondents were aware of UPI payment through television, 8% of the respondents were aware of UPI payment through newspapers, 44% of the respondents were aware of UPI payment through friends, 30% of the respondents were aware of UPI payment through internet and 2% of the respondents were aware of UPI payment through other source of media. Majority (44%) of the respondents were aware of UPI payment through their friends.
- **Transaction value:** It was clear that for transaction value out of 250 respondents 21% of the respondents had an transaction value between Rs.1 – Rs.1000, 52% of the respondents had an transaction value between Rs.1000 – Rs.5000, 25% of the respondents had an transaction value between Rs.5000 – Rs.10000 and 2% of the respondents had an transaction value above Rs.10000. Majority (52%) of the respondents had a transaction value between Rs.1000 – Rs.5000.
- **Satisfaction level:** it was found that for satisfaction level out of 250 respondents 17% of the respondents were highly satisfied of UPI payment application, 63% of the respondents were satisfied of UPI payment application, 13% of the respondents were normally satisfied with the UPI payment application and 7% of the respondents were dissatisfied of UPI payment application. Majority (63%) of the respondents were satisfied of UPI payment application.
- **Frequency of payment:** it was clear that out of 250 respondents 68% of the respondents use UPI payment application whenever needed, 22% of the respondents use UPI payment application once in a week, 8% of the respondents use UPI payment application once in a month and 2% of the respondents use UPI payment application occasionally. Majority (68%) of the respondents use UPI payment application whenever they needed.

- **Other mode of payment applications:** For other modes of payment applications used it was found that out of 250 respondents 60% of the respondents were using Google pay other than UPI payment (Phone Pe), 24% of the respondents were using Pay TM other than UPI payment (Phone Pe), 16% of the respondents were using Amazon pay other than UPI payment (Phone Pe). Majority (60%) of the respondents were using Google pay other than UPI payment (Phone Pe).
- **Challenges faced:** out of 250 respondents it was found that 92% of the respondents says no for fraud and charge backs in UPI payment, 84% of the respondents say no for cross-border transaction in UPI payment, 52% of the respondents say no for card data security in UPI payment, 88% of the respondents say no for multi-currency and payment methods in UPI payment, 79% of the respondents say no for technical integration in UPI payment. Majority (92%) of the respondents say no for fraud and charge backs in UPI payment.
- **Problems faced (WAS):** It was found that not providing information is the major problem faced through online payment of the respondents, not giving fast response problem has been ranked second, followed by lack of security in transaction problem faced, leaving the operation unfinished, waiting for long time for conducting of transaction, too many steps in processing transactions, lack of clear guidelines, and login /sign off are not easy.
- **ANOVA:** The ANOVA test statistics table shows that Free fund transfer has the significant value of 0.129, Useful for small transaction has the significant value of 0.576, Privacy of bank account has the significant value of 0.791, More secure has the significant value of 0.858, Instant transfer has the significant value of 0.007 and Rewards & cash backs has the significant value of 0.002. The major factors significant value is above the table value. So, the null hypothesis is accepted and concludes that there is significant relationship between the two factors. Thus, the satisfactory level and the gender of the respondents exert relationship between each other.
- **Chi-square:** The significant value (0.435) is less than the table value of Chi-square test. So, we reject the null hypothesis and conclude that there is no significant relationship between the two factors. Hence the satisfactory level and gender of the respondents have no relationship between each other.

## XII. SUGGESTIONS

- People get wide range of banking services and payment option through online payment app. But, the fear of giving their personal details through mobile applications in order to transfer funds is high. So, the security measure has to be strengthened.
- Most of the users use more than one UPI applications, just because they get benefited with the offers, cash-backs and coupons. So, referral bonus being offered can be increased to motivate and attract their users.
- Some people have difficulty in connecting their mobile numbers with UPI applications due to technical faults, such faults has to be rectified paving way to use the applications effectively.
- The proper information regarding the completion of transaction is not promptly available. So, prompt information related to the transaction status should be provided more clearly.

## XIII. CONCLUSION

The study highlighted the Mobile users to transform their paper work to online paperless work by using online applications like UPI. UPI creates convenience of transacting money without knowing Bank details, only with phone number or virtual address with high security and simple process. People also get a wide range of banking services and payment option through the online payment application available in mobile itself, will increase the cashless transactions value. Because UPI is being increasingly adopted by the mass people and it is a gamechangers in the digital payment. As the level of consuming is also increased and low-cost service that it provides to their users is more-effective and the people feels easy to use this application. UPI makes the mobile phones as the primary device to make payments all payments and brings enormous changes in digital payment sector. The study throws light on mobile based era for all the transaction<sup>9</sup>.

<sup>9</sup> Meyer, C. and Schwager, A. (2007), "Understanding Customer Experience", *Harvard Business Review*, Vol.85 No.2, pp 116-126.

## References

- Chuanwei Zou, Haier Liu and Ping Xie, *Internet Finance in China: Introduction and Practical Approaches*, edition 2015, University of Michigan.
- Mahmood Shah and Steve Clarked, 'E-Banking Management:Issues, Solutions and Strategies's', edition 2009, Information science reference, UK.
- MONTHLY MAGAZINE- Txnnxt published by NPCI- National Payments Corporation of India, vol 1, issue 2.
- Philip Kotler, Kevin Lane Keller, 'Marketing Management', Pearson publications, edition-2015
- Roshna Thomas and Abhijeet Chatterjee (2017) Adoption of Digital Wallet by, Consumers. *BVIMSR's Journal of Management Research* 8: 69.
- R.Meenakshi, U K Sudha Nayak, R Couvery & M Girija, 'Research Methodology', S.Chand, Revised edition 2003
- Salil Panchal and Manu Balachandran (2018) Drivers of Digital Wallet Usage: Implications for Leveraging Digital Marketing. *International Journal of Economic Research* 13: 175-186.
- ShrutiArcot Kesavan (2018) Theoretical Constructs of Mobile Payment Adoption. 27th Information Systems Research Seminar, Scandinavia (IRIS), Falkenberg, Sweden, pp: 34-46.

## WEBSITES

1. [www.internationaljournal.org](http://www.internationaljournal.org)
2. [www.oxfordacademicpublishers.oup.com](http://www.oxfordacademicpublishers.oup.com)
3. [www.sagepub.com](http://www.sagepub.com)
4. [www.indianjournals.com](http://www.indianjournals.com)
5. [www.researcher.com](http://www.researcher.com)
6. [www.ejournals.org](http://www.ejournals.org)

