Challenges of Digital Payment System – Customer Perception with Special Reference to Thanjavur Town

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Abstract: Digitalization of payment is a novel initiative of financial industry to achieve the goal of easy, convenient and secure payment method. The penetration and increasing use of internet and mobile has paved way for the tremendous growth of digital payment. The Government initiative to convert India in to a digitally empowered country through Digital India program has also increased the usage of digital payment system. Another extensive boost to the adoption of digital payment system is the demonetization of high value currency of Rs.500 and Rs.1000 as part of reform introduced by the government during November 2016. It has positively helped to enhance the chance for people to go cashless. However, cashless, paperless and faceless transactions have negative aspect as well. The exponential change brought about by technology has also brought with it short term and long-term challenges. Breach of Privacy and cyber security are the most critical challenges faced by the stakeholders of digital payment system. The main purpose of this research is to analyze the various challenges faced by the digital payment users.
Keywords: Digital payment, Non-cash transactions, Digital payment users' perception, UPI-payment networks, Unstructured Supplementary Service Data

Introduction

The Indian economy is predominantly a money driven economy and the economic culture also reveals a deep-frozen trend of cash-based purchasing. Till recent past most of the adult population have done their financial transactions in the form of cash. Major part of the Indian economy depends on rural economy (Gopinath & Poornapriya, 2020). According to 2018 World Bank report, India has the second largest unbanked population and nearly half of the bank users' account remained inactive in 2017 (Kavitha & Gopinath, 2020). Indian government has made magnificent effort over the past decade to provide basic banking services to the underserved segments and achieve the dream of financial inclusion. Digital payment is an instrument in driving financial inclusion and creating financial opportunities for the poor and unbanked (Jeya & Gopinath, 2020). The growing number of smartphone ownership and internet usage in the country paved way for the significant increase in the non-cash and contactless payment and it has also become the norm across the major cities. Demonetization of high value currency of Rs.500 and Rs.1000 as part of reform introduced by the Government of India during November 2016 was notably a major turning point for Indian economy (Bhawiya Roopaa & Gopinath, 2020a) This event can be marked as the beginning of a new digital era as India has witnessed a significant increase in the number of card transactions and usage of digital

wallets for low value transactions. The shift to digital payments has been fueled by the unparalleled thriving of Unified Payments Interface (UPI). According to National Payments Corporation of India, UPI transactions in February 2020 has recorded the highest ever volume of 1.32 billion. The widespread adaptation of digital payments is backed by both domestic and global companies like Paytm, Phonepe, Mobikwik and Google Pay(Bhawiya Roopaa & Gopinath, 2020b).
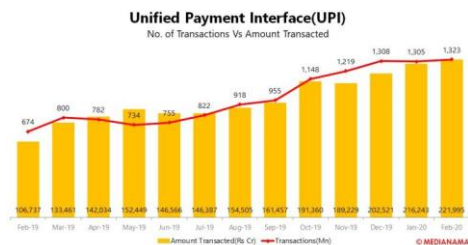
Source: Medianama.com

Apart from UPI, payment networks like IMPS (immediate payment services), and AePS (Aadhaar-enabled Payment System) provide unified payment processes and services. UPI is extensively used for peer-to peer transactions and cards are used to make merchant payments. According to RBI report,in the first three quarters of financial year 2020, UPI payments by value have taken over card-based payments (Saminathan et al., 2020a). The Ministry of Electronics and Information Technology and RBI have launched several initiatives to promote digital payment and its acceptance like launch of UPI based BHIM app, scheme of BHIM Aadhaar, cashback scheme for merchants, bonus schemes for individuals on BHIM, Digital Jagriti Program etc.,.

Financial institutions on their part with the aim to provide convenience and ease of accessing financial services to customers have digitized banking operations. Right from creating bank account, applying for loans to making transactions bank customers can do everything visiting brick and mortar bank (Saminathan et al., 2020b). To create a cashless economy, the stakeholders of financial sector introduced various modes of digital payment system which can be listed as banking cards, USSD (Unstructured Supplementary Service Data), AEPS (Aadhar Enabled Payment System), UPI (Unified Payment Interface), Mobile Wallets, Bank prepaid cards, EFTOPS, Online banking, Mobile banking, ATMs. Banks at global level are in the process of going for virtual banking without having a single physical branch.

Growth of Digital payment transactions

Digital Payment System Growth Indicators – Annual Turnover					
Item	Volume (million)			Value (₹ billion)		
	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
RTGS	107.8	124.4	136.6	981,904	1,167,125	1,356,882
ECS DR	8.8	1.5	0.9	39	10	12.6
ECS CR	10.1	6.1	5.4	144	115	132.35
NEFT	1,622.1	1,946.4	2,318.9	120,040	172,229	227,936
IMPS	506.7	1,009.8	1,752.9	4,116	8,925	15,903
UPI	17.9	915.2	5,353.4	69	1,098	8,770
Credit Cards	1,087.1	1,405.2	1,762.6	3,284	4,590	6,033
Debit Cards	2,399.3	3,343.4	4,414.3	3,299	4,601	5,935
PPIs	1,963.7	3,459.0	4,604.3	838	1,416	2,129

Source: RBI

The following chart shows digital transaction volumes on a yearly basis over last 5 years.
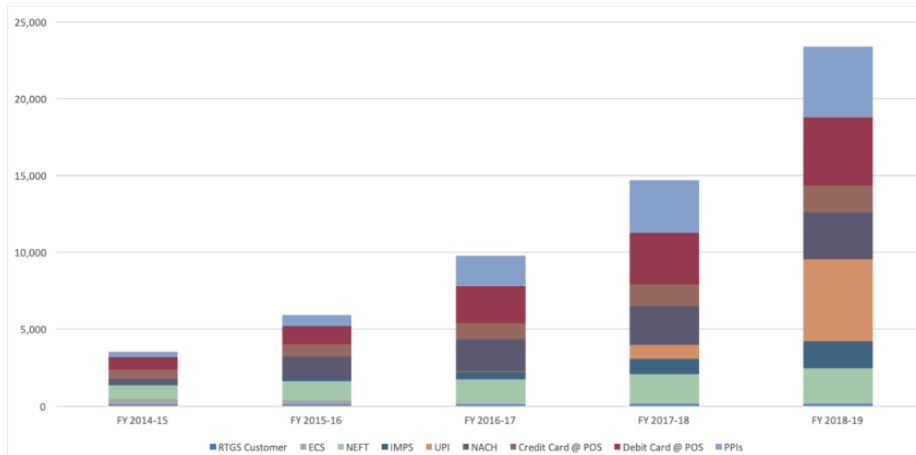
Source: RBI

Source: RBI

According to the RBI report on November 2019, Digital payments constituted 96% of total non-cash retail payments during the period October 2018 to September 2019and the National Electronic Funds Transfer (NEFT) and Unified Payments Interface (UPI) systems handled 252 crore and 874 crore transactions with year-on-year growth of 20% and 263%, respectively (Kavitha & Gopinath, 2020a).

While the digital payment service providers continue to provide innovative services and delivery channels that offer multiple potential benefits to their consumers, the exploitation options for criminals are also increasing and it has become difficult to identify the origin of crime and nail the culprits. The constantly nagging frauds threatens Prime Ministers' Digital India dream. It is very important for the digital payment ecosystem to understand the threat vectors that come along with different payment methods and there is an urgent need to work together to find solutions (Kavitha & Gopinath, 2020b).

Review of Literature

Ashish Baghla (2018) in his research on the future of digital payments in India identified the present scenario of digital payment adoption in India and he tried to identify the reason for adoption and also the problem faced by the users of digital payments. It is stated in this research that the biggest challenge in front of government is the lack of knowledge and awareness among people and fear of loss of money due to hacking by use of digital payment systems. It is suggested that the government needs to tackle

these challenges to have cashless economy and to give a boost to digital payments to provide sustainable economic development to the country in the long run.

Bappaditya and Mukhopadhya in their study estimated the impact of demographic profile on the usage of digital payment system. The study revealed that an extremely small correlation exists between cashless payments and education level as well as between cashless payments and income earned. It also revealed that a very high positive correlation exists between the people who collect the payments in their bank accounts and of those who are engaged in cashless payments. Prepaid cards and mobile payments showed maximum growth.

Dinesh, T. M., Kiran Kumar Reddy, and Suhasini, K. (2018), assessed the impact of demonetization on digital payment and it is found by them that the effect of demonetization is higher which is visible through the increase in the number of RTGS and mobile transactions.

Kram and CemGurler (2016) examined the factors which affect the adoption of mobile payment systems by the consumer. In this study negative relationship was found between environmental risk and perceived trust whereas a positive relationship was found between firm reputation and perceived trust. Perceived usefulness and perceived ease of use are the factors which do not have any effect on Adoption of MPS. Perceived Trust, Perceived Mobility and Attitude have a positive effect on the adoption of MPS.

Maryam Barkhordari, Zahra Nourollah (2017), investigated the factors influencing trust in e-payment system in Iran. This study revealed that technical & transaction procedures, and access to security guidelines are significant factors for improving consumers' perceived security, while the most important factors influencing trust are access to security guidelines and security. Finally, consumers' perceived trust also has a positive impact on EPS adoption.

Statement of the Problem

Technology gives consumers more delivery choices than even before they are expecting more delivery alternatives, more personalized service and greater access. The world is witnessing dramatic change in payment system which will in turn create a cashless society. The Government initiative to convert India in to a digitally empowered country through Digital India program has also increased the usage of digital payment system. However, cashless, paperless and faceless transactions have negative aspect as well. The exponential change brought about by technology has also brought with it short term and long term challenges. Breach of Privacy and cyber security are the most critical challenges faced by the stakeholders of digital payment system. The main purpose of this research is to analyze the various challenges faced by the digital payment users.

Research Objectives

- To analyze the challenges faced by the digital payment users in the study area
- To assess the digital payment users' perception towards grievance handling mechanism adopted by the financial institution especially with respect to digital payment system.
- To analyze the relationship between digital payment users' perception and their socio-economic profile.

Research Methodology

This research is descriptive and the empirical part of the study is based on primary data collected through well-structured questionnaire from the sample of digital payment users in the study area. The reliability of questionnaire was tested using Cronbach Alpha co-efficient. The reliability of questions related to challenges were tested under nine dimensions.

Items	No. of items	Cronbac's Alpha
Common problems with Digital payment	13	0.910
Problem related to ATM	10	0.941
Problems resulted to credit card	39	0.970
Problems related to debit card	8	0.904
Problems related to Internet bank	8	0.914
Problems related to Mobile banking	3	0.713
Problems related to RTGs, NEFT and ECS	3	0.818
Problems related to UPI	4	0.835
Problems related to fraud	12	0.909

For this study samples were selected from Thanjavur town and convenience sampling technique is used to select the sample out of the total population. The questionnaires were distributed to 650 sample of respondents in the study area. After the follow-up of the 650 distributed questionnaires 482 usable were received. According to the chosen methodological research approach the quantitative data were analyzed using statistical methods such as percentage, chi-square test, and one way ANOVA.

Result and Discussion

Table 1: Socio economic profile of the respondents

Age	No. of respondents	Percentage	Income	No. of respondents	Percentage
Below 30	110	22.8	Below Rs.15000	131	27.2
30-40	198	41.1	Rs.15000-Rs.25000	155	32.2
41-50	119	24.7	Rs.25001-Rs.40000	110	22.8
Above 50	55	11.4	Above Rs.40000	86	17.8
Total	482	100	Total	482	100
Qualification	No. of respondents	Percentage	Occupation	No. of respondents	Percentage
Graduation	132	27.4	Businessmen	58	12.0
Post-Graduation	193	40.0	Professionals	75	15.6
Doctorate	21	4.4	Government employee	157	32.6
Professional course	91	18.9	Private employee	129	26.8
Others	45	9.3	Others	63	13.0
Total	482	100	Total	482	100

Source: Primary data

Table 1 reveals the socio-economic profile of the respondents. It is clear that 41.1% of the respondents are in the age group of 30-40 years, 22.8% of respondents are in the age group of below 30 years, 24.7% of respondents are in the age group of 41-50 years and 11.4% of the respondents are in the age group of above 50years. As for as earning capacity of the respondents is concerned 27.2% are

earning below Rs.15,000, 32.2% are earning between Rs.15,000 and Rs.25,000, 22.8% are earning between Rs.25,001 and Rs.40,000 and 17.8% of them earning above Rs.40,000.Majority of the respondents are highly qualified and out of the total sample, majority of them are salaried people that is Government and Private Employees.

Table 2: Respondents' preference towards Digital payment system

Preference	Frequency	Percentage
Yes	471	97.7
No	1	2.3
Total	482	100.0

Table 2 reveals the preference of respondents in the study area towards Digital payment system. It is found that 97.7 percent of the respondents prefer to use digital payment system for their financial transactions and only 2.3 percent don't prefer digital payment system.

Table 3: Level of problem faced by respondents in the study area.

Level of problem	Frequency	Percentage
Low	156	32.3
Moderate	188	39.0
High	138	28.7
Total	482	100.0

Source: Primary data

Table 3 shows the overall problems perceived by the respondents. It represents that 39 percent of the respondent's problems are moderate, 32.3 percent are low and 28.7 percent are high. It is concluded that majority of the respondents faced moderate level of problem in the study area.

Table 4: Respondents' satisfaction towards Grievance handling mechanism of financial institutions with respect to digital payment system.

Opinion about satisfaction	Frequency	Percentage
Highly dissatisfied	45	9.3
Dissatisfied	122	25.3
Neither satisfied nor dissatisfied	65	13.5
Satisfied	182	37.8
Highly satisfied	68	14.1
Total	482	100.0

Table 4 reveals the overall satisfaction of respondents with reference to grievance handling mechanism adopted by financial institution. It reveals that 37.8 percent were satisfied, 25.3 were dissatisfied, 13.5 percent neither satisfied nor dissatisfied and 9.3 percent highly dissatisfied with reference to the problems handled by the financial institutions. It is concluded that the overall satisfaction of respondents towards grievance handling mechanism adopted by financial institution is average.

Table 5:There is no significant association between age group and level of Problem perceived by Digital payment users.

Age group (years)	Level of problem			Total	Chi-square value	P value
	Low	Moderate	High			
<30	37 (33.6)	42 (38.2)	31 (28.2)	110		
30-40	63 (31.8)	75 (37.9)	60 (30.3)	198		
40-50	36 (30.3)	46 (38.7)	37 (31.1)	119	3.733	0.013**
>50	20 (36.4)	25 (45.5)	10 (18.2)	55		
Total	156	188	138	482		

The chi-square test clearly shows that there is a significant association between age group and level of problems perceived by digital payment users since P value is less than 0.05, the null hypothesis is rejected at 5% level of significance. The digital payment users in the age group of above 50 years have faced lesser problems compared to other age group and the problems faced by age group of 30-40 is high.

Table 5:There is no significant association between occupation and level of Problem perceived by Digital payment users.

Occupation	Level of problem			Total	Chi-square value	P value
	Low	Moderate	High			
Businessman	23 (39.7)	15 (25.9)	20 (34.5)	58		
Professional	24 (32.0)	30 (40.0)	21 (28.0)	75		
Govt. Employee	39 (24.8)	61 (38.9)	57 (36.3)	157	19.897	0.030**
Private employee	43 (33.3)	56 (43.4)	30 (23.3)	129		
Others	27 (43)	26 (41.2)	10 (15.8)	63		
Total	156	188	138	482		

The chi-square test clearly shows that there is a significant association between occupation and level of problems perceived by digital payment users since P value is less than 0.05, the null hypothesis is rejected at 5% level of significance. It reveals that government employees' perception on problems with respect to digital payment system is high in comparison with other digital payment users.

Table 6:There is no significant association between level of Problem perceived by Digital payment users and their satisfaction towards digital payment system.

Level of problem	Level of satisfaction			Total	Chi-square value	P value
	Low	Moderate	High			
Low	1	79	76	156		
Moderate	42	95	51	188		
High	58	64	16	138		
Total	**101**	**238**	**143**	**482**	86.725	0.000***

The chi-square test clearly shows that there is a significant association between level of problem perceived by Digital payment users and their satisfaction towards digital payment system, since P value is less than 0.01, the null hypothesis is rejected at 1% level of significance. It reveals that the problem of perceived by digital payment users is moderate and hence their satisfaction towards digital payment system is also moderate.

Recommendations and Conclusion

From this study it is found that that the challenges perceived by the digital payment system users at Thanjavur town is at moderate level and beyond all challenges, they prefer to use the facilities provided by digital mode. But this has significant impact on the satisfaction level of customers. To promote digital mode of payment it is of paramount important that the financial institutions and service providers should ensure quality in service (Rethinavalli &Gopinath, 2020). There was no definite grievance redressal mechanism in place with the customer being out of funds for the time take by the financial institutions to resolve the complaint. Therefore, there should be a zero-liability clause whereby immediately on being informed of the system failing to transfer cash, the funds of the customers should be immediately restored.

Grievance redressal process to address complaints in the nature of identity theft is not quite satisfactory. While digital mode of payment is convenient to customers and cost effective to the service providers, there should be total secure protection afforded to the customers against any losses suffered on account of such transactions. Three factor authentication method should be introduced to authenticate online usage of card or card not present transaction.

The complications and concerns related to Fraud lodge the foremost place. There should be an open-end discussion on the threat and vulnerability coming across the functioning of digital mode of payment by employees in the various official forums.

Financial institution and other stakeholders must continue to educate the customers on emerging threats. It is unfortunate that Indian financial institutions do not report frauds because there is no legislation to make fraud public. In India, financial institutions are not legally mandated to put fraud in public domain.

Hence, besides offering more and more innovative and value-added services financial institutions and other service providing associates should concentrate more on safety and privacy of

financial transactions. By offering more advanced security solutions and ensuring safety of digital mode of payment system it is possible to reach the destination of cashless society.

REFERENCES

- Bhawiya Roopa, S., & Gopinath, R. (2020b) Evaluation on satisfaction level of CSR activities in Banks of Tamil Nadu from customer's perspective- a study. International Journal of Management, 11(11), 2918-2929.
- Bhawiya Roopaa, S., & Gopinath, R. (2020a). The Role of CSR Commitment on Rural Development with reference to Banking Sector. International Journal of Advanced Research in Engineering and Technology, 11(11), 2405-2418.
- Cajetan (2018). Digital banking, customer experience and bank financial performance: UK customers' perceptions. International Journal of Bank Marketing, Vol.36 (2). pp. 230-255.
- Costas Lapavitsasand Paulo L.DosSantos,"Globalization of contemporary banking: Ontheimpactof newtechnology–contribution topoliticaleconomy,publishedonlineonApril9,2008.
- Dr. Shyam Jivan SalunkheA study of digital payment system: challenges and remedies, International Research Journal of Management and Commerce ISSN: (2348-9766Volume 4, Issue 11, November 2017.
- Gopinath, R., & Poornapriya, T.S. (2020). Financial Effect on the left behind elderly Parents due to Migration, International Journal of Management, 11(11), 3129-3140.
- Jeya, J., & Gopinath, R. (2020). Customer Service Techniques and National Insurance Company Efficiency, International Journal of Management, 11(12), 3776-3784.
- K. Suma Vally and 2K. Hema Divya A Study on Digital Payments in India with Perspective of Consumers' Adoption, International Journal of Pure and Applied Mathematics, Volume 119 No. 15 2018, 1259-1267
- Kavitha, H., & Gopinath, R. (2020a). Role of Commercial Banks Financing and Explaining towards the Small-Scale Firms in Tamil Nadu: An Empirical Investigation of Entrepreneur's Perspectives, International Journal of Management,11(10), 2172-2182.
- Kavitha, H., & Gopinath, R. (2020b). Effect of Service Quality on Satisfaction and Word-Of-Mouth: Small Scale Industries and their Commercial Banks in Tamil Nadu, International Journal of Management,11(11), 3034-3043
- Kavitha, J., & Gopinath, R. (2020). A Study on Perception of Internet Banking users Service Quality-A Structural Equation Modeling Perspective, International Journal of Management,11(8), 2204–2217.
- Peterson K Ozili (2018), Impact of Digital Finance on Financial Inclusion and Stability, MPRA Paper No. 84771, posted 24 February 2018 10:08 UTC online at https://mpra.ub.uni-muenchen.de/84771
- Premchand A., Choudhry A., Future of Payments-e-Payments, International Journal of Emerging Technology and Advanced Engineering 5 (2015), 110-115.
- Rethinavalli, S., & Gopinath, R. (2020). Botnet Attack Detection in Internet of things using Optimization Techniques, International Journal of Electrical Engineering and Technology, 11(12), 412-420.
- Saminathan, R., Hemalatha, P., & Gopinath, R. (2020a). A Study on Performance Management in BMTC with special reference to Divisions, International Journal of Advanced Research in Engineering and Technology,11(10), 1966-1973.

- Saminathan, R., Hemalatha, P., & Gopinath, R. (2020b). An Analysis of Income and Expenditure with special reference to BMTC, Bangalore, International Journal of Management,11(7), 1760-1768.
- Uppal R.K. "Paradigm shiftinproductivity of e-age banking: some evidencefrom theIndianBanks",InternationalJournalofEconomics andDevelopment2010,Vol.1,No.3,Pages277–295.
- ZacharyB. Omariba,NelsonB. Masese,Dr.G.Wanyembi,"Securityand privacy ofElectronicbanking", InternationalJournalofComputer ScienceIssues,2012,Vol.9,Issue:4, No.3, Pages,432-445.