A Study On Challenges Faced By The Consumers And Its Impact On Usage Of Digital Mode Of Payments In The City Of Mumbai

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Abstract: Digital payments are the payments which are conducted through internet enabled service it helps in making and receiving the payments digitally. We can see the rapid growth in users of digital payments lately so, it is important to understand what are the challenges that impacts the usage of digital mode of payment. The aim of this study is to have an eye on challenges faced by consumers while opting digital payment and its impact on usage. Challenges like technological, infrastructural, cash dependency, trust & security, and transparency in digital transaction, which could attract higher taxes are taken into consideration. The area of the study is Mumbai city with a sample of size of 52 respondents by adopting convenience sampling method. Primary data is collected through online google form. Chi square test analysis is adopted to measure the relationship analysis between the challenges faced on the impact of usage of digital payment. Whereas the paper concludes habit of using cash and infrastructure challenges are the challenges which affects the usage of digital payments.

Keywords: **Digital Payment, Challenges, Usage, Impact**

I.Introduction

India has always been one of those countries who is the early adopters of new technologies. The entire nation loped the computer phase and adopted the new digital age of the mobile device. According to counterpoint Research, the Indian smartphone market has been increased from 14.5 million in 2011 to 502.2 million in 2021. Internet users in India have increased from 795.18 million in December 2020 to 825.30 million in March 2021. Without a doubt, Indian consumers and business owners have embraced a wide range of new and upcoming technology.

Government has taken various measures to boost digital payments. Flagship program of Indian government called Digital India was launched in 2015 with the aim to convert India into digital nation. Digital payments can be done over the internet and as well as physically. In simple words in digital payment method there is no use of physical cash or cheques. Digital payment methods are revolutionary alternative to conventional cash payment method. Digital mode of payments is advantageous in many ways and the flexibility of doing payment from

anywhere to everywhere is the unique quality of this payment method. Digital transfer of money makes the transaction cycles quite rapid. Post demonetization, and COVID-19 era people have started accepting and welcoming digital mode of payment. From small business owners to big merchants everyone has started using digital payments. The payment is done through different digital mode of payment like – E-Wallets, Unified Payment Interface (UPI), Cards, NEFT, RTGS, IMPS, Unstructured Supplementary Service Data (USSD), etc. Following the advent of cashless India, currently India has ten different digital payment methods. Some of them are being used more than a decade, while others have lately gained popularity. As we are in digital advancement era business are going digital, so the mode of payments as well. But parallelly digital business and digital payment come with real hardship.

	Banking Cards	E - Wallets	USSD	UPI	IMPS	NEFT	RTGS
Timing	24 x 7	24 x 7	24 x 7	24 x 7	24 x 7	8:00-18:30	8:00-16:30
Time to complete a transaction	Instant	Instant	Instant	Instant	Instant	Real-Time	Same Day
Transaction Limit	Depending upon bank and card	20,000	5000 per transaction	1 lakh per transaction	2 lakh per day	10 Lakh	2-10 Lakh
Information Required	For POS: Pin/ For online card No. CVV, Expiry date	Login & pay	MPIN/IFSC/Adhaar/ Account Number	VPA of Recipient & MPIN	A/c No. Required & IFSC CODE		A/c No. Required & IFSC CODE
Authentication	2 Factor Authentication	2 Factor Authentication	2 Factor Authentication	2 Factor Authentication	2 Factor Authentication	2 Factor Authentication	2 Factor Authentication
Interest Earned	Yes	No	Yes	Yes	Yes	Yes	Yes
Beneficiary Registration	No	No	No	No	Yes	Yes	Yes
Technical Requirement	Internet Connectivity and POS machine	Smartphone with Internet	Smartphone	Smartphone with Internet	Internet Connectivity	Internet Connectivity	Internet Connectivity
USP	Can be used online as well	high user base, in case of	Accessed without internet	Single app for all bank accounts	Instant transfer	Commonly use virtual	High amount transactions

and POS	small value transactions				transfer system	

Table 1: Modes of Payment

Common Challenges faced by Consumers

- **Unbanked Population –** Government and RBI together have taken many initiatives to bring the unbanked population to formal credit system. Various schemes like PradhanMantriJan Dhan Yojana, digital India payments limited etc. these schemes were majorly focused for rural India. But according to the research done jointly by Assocham and EY report only 81% of the population are banked, rest 19% of the population are still financially excluded.

- **Online Fraud & Lack of Trust** – Many people are still hesitant to use digital payment method. As they lack trust on online payment method. They do not feel secure and safe while sharing their bank details online. Fraud is not a new word, but it is quite shocking fraudsters have discovered and exploited weaknesses in online payments. This is one of the reasons why business owners resist using online payment methods. In most circumstances, either the business owners do not receive the amount or higher amount has been deducted from payer's account.

- **Cash Dependency –** Since very long Indians are dependent on cash for every transaction. In many sectors and disciplines, cash is being used for doing business. Indians are so habituated and accustomed to cash transactions. Cash method is one of the traditional methods use by the people to transact. They are truly unaware of the benefits of doing and accepting payments digitally.

- **Infrastructure Challenges** – Infrastructure challenges are one of the roadblocks which India sees for adoption of digital payments. We have poor internet connection, lack of awareness, lack of knowledge, low literacy rate, low penetration of ATMs.

- **Transparency –** In India there is a concern that all digital transactions are traced by the Income Tax authorities which will lead to scrutiny and greater tax rates. So, many of them prefer cash as they believe it doesn't leave any imprint. Cash is no doubt preferred method for shady transactions and tax evasion.

II. **Objectives**

1. To study the impact of technological challenges on usage of digital mode of payment.
2. To study the impact of transparency in digital transactions on usage of digital payments.
3. To study the impact of cash dependency by consumer and its usage of digital payment.
4. To study the impact of infrastructural challenges on usage of digital mode of payment
5. To study the impact of trust & security on usage of digital mode of payment.

III. Hypothesis –

1. H_{01}- There is no significant relation between technological challenges faced by consumer and its usage of digital payment.
2. H_{02} - There is no significant relationship between transparency in digital transaction, which could attract higher taxes and its usage of digital payment.
3. H_{03} -There is no significant relation between cash dependency by consumer and its usage of digital payment.
4. H_{04} - There is no significant relation between infrastructure challenges faced by consumer and its usage of digital payment.
5. H_{05} – There is no significant relation between trust and security issues faced by consumer

IV. Literature Review

- (Shah, 2017) Zahoor Ahmad Shah in his research title "Digital Payment System: Prospects and Problems" focuses on the infrastructure present in India to keep up with the increasing digital payment space and barriers faced by the whole economy to become cashless. Thus, it is observed that majority of transaction are done in cash specially in the rural sectors. In near future India is far away from achieving cashless economy.

- (Chittineni, 2018) Similar findings were found by the Jyoti Chittineni in her research titles "Perceived Barriers for the Adoption of Digital Payment Services: A Study on South Indian Customers". The construct of this paper has been drawn from Innovation Resistance Model. The result of the study concludes that the major factors which are responsible for non-adoption of digital payment methods are cash dependency, security, and ease of use.

- (Babulal, 2019) Malusare Lalita Babulal (2019) in the article titled "Digital Payments Method in India: A study of Problem and Prospects". The objective of the study is to create understanding about digital payment system in India and the problem faced by the consumers. Awareness and the digital literacy are very low in the country like India. Few of the major problems faced by the consumers are the infrastructural and social barriers.

- (Jauhari, 2018) Study done by Shilpi Jauhari titled "Barriers in the Adoption of Mobile Wallets in Reference to Lucknow City" throws light on the hurdles in adoption of digital mode of payments especially mobile wallets in the city of Lucknow. Nowadays with the very high speed of internet and the smart phones, transacting through mobile wallets have become easier. But still cash is preferable in both urban and rural areas. Adoption of mobile wallets can increase if awareness is created regarding financial education, security, usage, and benefits.

V.Research Methodology

The study aims to know the challenges faced by the consumers while opting for digital payments. The primary objective of the research is to know the impact of challenges faced by the consumers on the usage of digital payments in Mumbai city. Primary data has been collected in the form of survey adopting questionnaire form, whereas secondary data from journals, previous research, government reports, and websites have taken to support every aspect of the research. Data is presented using different types of graphs, and chi square test is used to test the hypotheses.

Data Collection

We have collected data in questionnaire form to know the challenges which are impacting the usage of digital payment targeting the population of Mumbai city. Questionnaire has focused on the challenges which are faced by the users and non-users of digital payments. Questionnaire was sent to 65 people out of which 52 responded effectively. Non-probabilistic convenience sampling method was adopted to collect data. Chi square test analysis is adopted to measure the relationship analysis between the challenges faced on the impact of usage of digital payment.

Research Limitations

Study is only restricted to the city of Mumbai, though it is one of the significant cities of the country and a financial capital. But only 52 samples selected from the city cannot be considered an entire representation of Mumbai. The respondent's biasness is one of the major limitations.

VI.Data Analysis & Findings

Structured questionnaire was sent to 65 citizens of Mumbai via email and WhatsApp for their response, out of which 52 responded correctly.

Respondent Profile

Items	Categories	Frequency
Gender	Male	24
	Female	29
	Total	53
Age Group	15-25	16
	26-35	22
	36-45	5
	46-55	1
	56 or above	9
	Total	53
Profession		
	House Maker	9
	Self Employed	14
	Working Professional	12
	Student	13
	Other	5
	Total	53

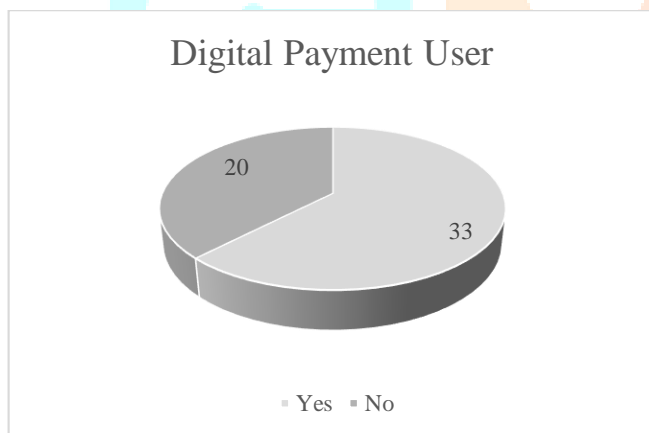*Table 2: Respondent Profile*

Digital Payment User

Fig 1: Digital Payment User

Hypothesis Testing

1. Null Hypothesis (H$_0$)- There is no significant relation between technological challenges faced by consumer and its usage of digital payment.

Alternate Hypothesis (H$_1$) - There is significant relation between technological challenges faced by consumer and its usage of digital payment.

	Digital Payment User	Do not Use Digital Payment	Total
Face Technological Problems	2	3	5
Do not face Technological Problems	31	17	48
Total	33	20	53

Table 3: Technological challenges

Observed Count (O)	Expected Count (E)	(O-E)	$(O-E)^2$	$(O-E)^2$ /E
2	3.11	-1.11	1.24	0.40
3	1.89	1.11	1.24	0.04
31	29.89	1.11	1.24	0.66
17	18.11	-1.11	1.24	0.07
X^2				1.164

Table 4: Chi Square

Calculated X^2 value of 1.164 and degrees of freedom of 1 are associated with a P value of less than 0.05, but greater than 0.25 ($0.25 < p < 0.05$). In other words, chi square value this large would occur between 25% and 50% of the time. Calculated chi-square value is less than the chi-square critical value. **Hence the researchers fail to reject the null hypothesis (H_0)**. Therefore, there is no significant relation between technological challenges faced by consumer and its usage of digital payment.

2. Null Hypothesis (H_0)- There is no significant relationship between the concern that authorities are tracking the digital transaction, which will lead to higher taxation and its usage of digital payment.

Alternate Hypothesis (H_1) - There is significant relationship between the concern that authorities are tracking the digital transaction, which will lead to higher taxation and its usage of digital payment.

	Digital Payment User	Do not Use Digital Payment	Total
Face Problem	2	4	6
Do not face Problem	31	16	47
Total			53

Table 5: Transparency in Digital Transaction

Observed Count (O)	Expected Count (E)	(O-E)	$(O-E)^2$	$(O-E)^2 /E$
4	3.74	0.26	0.07	0.02
2	2.26	-0.26	0.07	0.03
29	29.26	-0.26	0.07	0.002
18	17.74	0.26	0.07	0.004
X^2				0.0558

Table 6: Chi Square

Calculated X^2 value of 0.0558 and degrees of freedom of 1 are associated with a P value of less than 0.05, but greater than 0.25 ($0.75 < p < 0.05$). In other words, chi square value this large would occur between 75% and 50% of the time. Calculated chi-square value is less than the chi-square critical value. **Hence the researchers fail to reject the null hypothesis (H_0).** Therefore, there is no significant relationship between the concern that authorities are tracking the digital transaction, which will lead to higher taxation and its usage of digital payment.

3. Null Hypothesis (H_0)- There is no significant relation between cash dependency by consumer and its usage of digital payment.

Alternate Hypothesis (H_1) - There is significant relation between cash dependency by consumer and its usage of digital payment.

	Digital Payment User	Do not Use Digital Payment	Total
Habit of using cash	8	12	20
Do not have a habit of using cash	25	8	33
Total			53

Table 7: Cash Dependency

Observed Count (O)	Expected Count (E)	(O-E)	$(O-E)^2$	$(O-E)^2$ /E
8	12.45	-4.45	19.83	1.59
12	7.55	4.45	19.83	2.63
25	20.55	4.45	19.83	0.965
8	12.45	-4.45	19.83	1.593
X^2				6.778

Table 8: Chi Square

Calculated X^2 value is 6.778, it is greater than the critical p value which is 0.009236. As the calculate chi-square value is greater than chi-square critical value. Hence **null hypothesis (H_0) is rejected in favor of the alternate hypothesis (H_1).** Therefore, there is significant relation between cash dependency by consumer and its usage of digital payment.

4. Null Hypothesis (H_0) – There is no significant relation between infrastructure challenges faced by consumer and its usage of digital payment.

Alternate Hypothesis (H_1) - There is significant relation between infrastructure challenges faced by consumer and its usage of digital payment.

	Digital Payment User	Do not Use Digital Payment	Total
Face Infrastructural Problems	4	7	11
Do not face Infrastructural Problems	29	13	42
Total			53

Table 9: Infrastructural challenges

Observed Count (O)	Expected Count (E)	(O-E)	$(O-E)^2$	$(O-E)^2$ /E
4	6.85	-2.85	8.12	1.19
7	4.15	2.85	8.12	1.96
29	26.15	2.85	8.12	0.31
13	15..85	-2.85	8.12	0.51
X^2				3.963

Table 10: Chi Square

Calculated X^2 value is 3.963, it is greater than the critical p value which is 0.046506. As the calculate chi-square value is greater than chi-square critical value. Hence **null hypothesis (H_0) is rejected in favor of the alternate hypothesis (H_1)**. Therefore, there is significant relation between infrastructure challenges faced by consumer and its usage of digital payment.

5. Null Hypothesis (H_0) – There is no significant relation between trust and security issues faced by consumer.

Alternate Hypothesis (H_1) - There is significant relation between trust and security issues faced by consumer.

	Digital Payment User	Do not Use Digital Payment	Total
Face Trust & Security Problem	8	3	11
Do not face Trust & Security Problem	25	17	42
Total			53

Table 11: Trust & Security

Observed Count (O)	Expected Count (E)	(O-E)	$(O-E)^2$	$(O-E)^2$ /E
8	6.85	1.15	1.32	0.19
3	4.15	-1.15	1.32	0.32
25	26.15	-1.15	1.32	0.051
17	15..85	1.15	1.32	0.08
X^2				0.646

Table 12: Chi Square

Calculated X^2 value of 0.646 and degrees of freedom of 1 are associated with a P value of less than 0.05, but greater than 0.25 ($0.25<p<0.05$). In other words, chi square value this large would occur between 25% and 50% of the time. Calculated chi-square value is less than the chi-square critical value. **Hence the researchers fail to reject the null hypothesis (H_0).** Therefore, there is no significant relation between trust and security issues faced by consumer.

Conclusion

Statistical Conclusion

1.   Null hypothesis is rejected in favor of alternate hypothesis in 2 cases out of 5.
2.   Whereas, in 3 cases out of 5 cases researchers fails to reject null hypothesis.

Major finding of the research are –

•   In India many people are still not using mode of digital payment. According to this study approximately 37% of the total respondents are not using digital mode of payment.

•   In reference to this study, technological challenges do not impact the usage and adoption of digital mode of payment.

•   Similarly, concern of people that authorities are tracking the digital transaction, do not impact the usage and adoption of digital mode of payment.

•   On the other hand, the habit of using cash is one of major challenges that stops consumer from the usage and adoption of digital payment.

•   There is significant relation between infrastructure challenges faced by consumer and its usage of digital payment. Infrastructure challenges impact the adoption of digital mode of payment.

•   Trust and security issues do not affect the usage and adoption of digital payment.

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