Growing Imperative of Digital Payments In COVID-19 Pandemic- With Special Reference To Retail Customers

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Abstract

The impact of steps taken to contain COVID-19 and the fear of losing lives, on consumption and payment patterns is quite evident in India. The lockdown has changed the consumption and payment habits of consumers. The study was conducted to assess the impact of COVID-19 on payment patterns (retail) of consumers residing in urban areas of Varanasi and nearby towns. The required data was collected through an online survey. The questionnaire to assess the impact of pandemic on payments patterns (retail) was sent to urban consumers of Varanasi and nearby towns (U.P.), using Google forms. Some of the consumer's responses were recorded using telephonic interview. The data collected was analysed through MS-Excel and Jamovi version 1.6.23 software. To avoid physical contact, people have started digital payments, especially UPI/ Digital Wallets. The digital payments are used for both goods purchasing and services consumption and this behavior is likely to be continued in future also. There are some limitations also such as security threats, connectivity issues etc, which need to be improved. Due to administrative restrictions and social distancing mandates, small sample was selected for the study. The study has taken only urban consumers as sample. The findings will help marketers to adapt accordingly and concerned authorities to develop the necessary infrastructure for encouraging the digital payments among people.

Key Words: Pandemic, COVID-19, Digital Payments, Digital Wallets

Introduction

The world has been going through a tough time since last year because of the spread of COVID-19. The social distancing norms and lockdown has been declared by the governments all over the world to stop the spread. India being the second most populated country of the world, has also been affected by this pandemic a big time. People in India like other countries, have also been facing the disastrous time for two years back to back. No one was anticipated that the pandemic will affect their lives like this. This time around, in the second wave of pandemic, it has become more infectious and life threatening. To cope up with the challenges and follow the social distancing norms, people of India
have also changed many of their habits as never before. If we talk about the consumption and payment patterns, it has also changed drastically.

India has been among the fastest growing countries in terms of digital and technology revolution. With increased penetration of smart phones and usage of internet on mobile, India has become the second largest country in terms of smart phone users and internet users. Besides this the other reasons like favourable regulatory environment and increased consumer’s expectation have revolutionised the digital payments in India. With increased usage of smart phones, people have become comfortable with the digital payment methods now. After the demonetization, the digital payments drive has picked up its pace. Government’s drive to promote “Faceless, Paperless and Cashless” transactions have been successful so far. In recent times, especially amid COVID-19, it has become even more common among people in India. To maintain the distance and because of the lockdown, many people have started digital payments, who were hesitant to use it earlier. Government has been taking many steps to promote the digital payments. From opening zero balance accounts under “Pradhanmantri Jan Dhan Yojana” and providing debit card to the account holders to launching BHIM and other apps, encouraging digital payments by giving incentives and organizing digital payments awareness programs, government has been trying to increase digital payments in the country. Businesses and traders have also come up with digital payments solution for customers and contributing in digital payments drive. We can see number of digital payments modes like POS, UPI, QR code scanner, etc at different outlets. The digital payments drive have picked up pace in a manner that today almost every organization whether private or public, dealing in goods or services, every where customers are being given the options of digital payments. Even rural areas of India has seen a see change in digital payments adoption. Even the street vendors are having QR code scanner installed at their point of sale. India has become the second largest country in terms of internet users on mobile phones but there are few areas of concerns as well. The security threats, connectivity issues, etc are some major hindrances in the path of digital payments revolution in India.

This paper tries to find out whether there has been any change in payment system adopted by consumers, during/after the pandemic. As it is quite evident that people are horrified as the cases of death increases, it was very important to know how they are coping with the situation, especially for the payments of their purchases. The effort was also made to assess, how likely their behavior will be in near future. The motivation behind writing this paper is that there have been few studies on the digital payments environment after demonetization and impact of COVID-19 on digital payments but no major works have been done after the second wave when people are more concerned towards searching the ways to avoid physical contact and the impact on the adoption of digital platforms of consumers. As India has become the second largest population in terms of smart phone and internet users, it was interesting to find out whether the people of small cities like Varanasi and nearby towns are also following the trend or they are still using the traditional methods of payment for their day to day activities/purchases.

The paper has been divided mainly in eight sections. Section 1 deals with the introduction of the topic and the background of the study. In section 2, efforts are made to find the research gaps by reviewing the available literatures. Section 3 identifies research objectives which were formulated to come to a conclusion of the above stated problem. Section 4 talks about the research methodology adopted in the study. Section 5 relates to the analysis and key findings of the study. In
section 6 conclusion is drawn on the basis of analysis and findings. Recommendations, Limitations & Scope for Future Research are discussed in section 7 and used references are listed in section 8.

Digital Payment Methods in India:

Banking Cards:

Banking cards are debit, credit, cash, travel, pre-paid and different other types of cards which are popular among customers for security, convenience and control than any other payment method. There are wide variety of banking cards like Rupay, Visa, Master, Mestro cards which offer better flexibility in digital payments. These cards provide the ease of transactions with security of PIN and OTP. There are almost 750 banks which provide banking cards services.

USSD:

The USSD is an innovative *99# digital platform which works on Unstructured Supplementary Service Data channel. This digital mode includes the under-banked society in mainstream banking services, by enabling them for digital banking on their basic feature mobile phones without internet. Customers have to dial *99# on their mobile phones and they can transact through an interactive menu displayed on the mobile phone screen. USSD is helpful in inter bank account-to-account fund transfer, mini statement, balance enquiry beside a host of other services. Today 51 leading banks and all GSM service providers provide USSD services which can be accessed in 12 different languages.

AEPS:

AEPS is a bank-led digital banking model, which helps people in interoperable transactions at PoS and Micro ATMs using Aadhar authentication. The model offers various banking services such as balance enquiry, cash withdrawal, cash deposits, Aadhar-to-Aadhar fund transfer and payment transactions.

UPI:

UPI is the only platform that blends various banking facilities, seamless fund routing, and merchant payments at single platform. It also helps in Peer-to-Peer fund transfers. For using UPI services one should have mobile phone number linked with the bank account. Each bank provides its own UPI application for different mobile platforms such as Android, IOS and Windows. This facility can be availed only with a smart phone and internet access. There is a limit of one lakh rupees for fund transfer per transaction.

Mobile Wallets:

Mobile wallets provide an easier way to carry cash in digital format where the mobile phone acts as a wallet. A customer should get the bank account linked with the digital wallets for loading money in it. Customers can make payments with a mobile phone, tablet or smart watch with the help of Mobile Wallets. Some of the examples of Mobile Wallets are Paytm, Mobikwik, Airtel Money, Jio Money etc.

Point of Sale:

Point of Sale (PoS) is a handheld device with a card and/ or biometric reader which helps customers execute the payment for goods and services at time and place of purchase.

Internet Banking or Online Banking:

It is also an electronic payment system which works through bank’s website that helps customers to undertake number of financial transactions.
Online Banking provides various services like National Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Electronic Clearing System (ECS), and Immediate Payment Services (IMPS).

Mobile Banking:

Now almost each and every bank provides facility for customers to avail banking services remotely which can be used on a mobile device like mobile phones or tablets. The customers are provided with a customized mobile application for this purpose.

Micro ATMs:

Micro ATMs are the devices used by a million of business correspondents to deliver the basic banking services. These Micro ATMs are the mini versions of ATMs. This machine has a card swipe facility or finger print scanner. The bank representatives carry these machines and use it at remote locations, especially in villages. They have the responsibility for collecting and disbursing the cash through micro ATM transactions.

Review of Literature:

Sagayarani (2017) concluded that there are many people who think that cashless economy is beneficial in many ways but cyber crime is a major issue which needs to be resolved with better internet security. The author also suggests that government should encourage e-payments and conduct the financial literacy campaigns about the electronic payments methods.

Kavitha et.al (2018) found that the performance of banking sectors has improved with the increase in digital payments. The authors are in a view that the banks and financial institutions should take necessary steps for creating awareness about how to use digital payments effectively. Further they found that electronic payments have made the lives easier as it provides greater freedom for paying their bills, taxes and facilitates their purchase at unconventional locations, without any time restrictions, 365 days of the year. It is also found in their study that e-commerce payment depends on some factors like how consumer perceives, how much it is easy to use, cost involved in such transactions, security, anonymity, etc.

Byakod et.al (2018) concluded that for managed advancement and development of Indian economy with strong financial improvements, certain essential elements like enhanced straight forwardness, corporate administration and confining parallel money based economy is crucial. They also suggest that these improvements can also be attained in rural areas by grasping the computerised payment system. To increase the digital payments, the difficulties arise in UPIs and digital wallets need to be addressed and it should be ensured that transactions are secured. These measures would help the rural India in adopting the digital payments.

Murthy (2019) found that people are adopting cashless payments as digital payments bring good liquidity, scalability and accountability to them. The steps taken by the government to promote digital payments will encourage more merchants to accept e-cash or digital money. He also found that there are number of benefits of digital payments such as real-time domestic fund transfer, 24x7 availability, simple, fast and ready to use, inexpensive and safe and secure. Cashless modes are more convenient than cash. It is also found that digital payments also help the business people in strengthening their customer base and it helps in resource pool far beyond the national boundaries. Digital payments are environment-friendly as there is no need to cut trees. It saves from corruption. An area of concern is that despite of government's drive of digital payments have not taken the pace in rural regions. The reason is that
people are afraid in using digital payment platforms, even in Tier I & Tier II cities of India. Sarkar & Shailza (2019) concluded that India is no longer lagging behind the other countries of the world in digital payment revolution. They found that digital payments have taken a good pace and there is no chance of it to slow down in future. Indian people are enthusiastic about digital payments. With the demand for digital payments, there is anxiety among people about security as well. Further the authors conclude that there are numerous factors for exponential growth of digital payments such as smart phone penetration, simplicity in use, perceived usefulness of digital payments, growth of UPIs and digi wallets, progressive regulatory policies, etc.

Boakye-Adjei (2020) concluded that it should be recognised that COVID-19 presents to improve access to digital channels is a small silver lining for economies. Authorities are redefining their policy objectives to ensure that fintech firms, continue to thrive despite the business impact of pandemic. Further it is concluded that usage of digital channels should be combined with strong efforts to counter financial crime and ensure consumer protection.

Praveen & Hebbar (2020) found that there are many digital payments mode available in India, but most of the customers prefer only few digital payment modes. Because they are not having enough information about all the digital payment methods. Hence the bank should give proper awareness programs.

Toh & Tran (2020) concluded that as the COVID-19 pandemic continues, more consumers likely to adopt digital payments. Aided by various legislative and industry initiatives, consumers and businesses are adapting to the realities of the COVID-19 world by going digital.

Ardizzi et.al (2020) found that the sanitary emergency and the government measures to contain the diffusion of infection have intensified electronic payments at the point of sale. These developments sustained private consumptions during the lockdown and the severe recession hitting the economy. The pandemic could represent a structural break in consumer payment habits and a ‘game-changer’ in the process of substitution of the various means of payment in the society.

Malusar (2021) found that digital payments are easy to use both for customers and bank officials but still there are many people who are not aware about how to use it. For that the author suggests that there should be some literacy programs conducted about digital payments. Further it is found that there are people who find it risky to use digital payments.

Akilandeswari & Premlatha (2021) concluded that the perception of respondents towards adoption of digital payment methods during COVID-19 is fair and effective.

Pambudi et.al (2021) concluded that e-money can be affected by the money supply, electronic data capture, other non-cash payment (debit card and credit card), and the customer income. Due to COVID-19, people think that avoiding physical contact payments, it could be reduced from spreading.

Siby (2021) found that the high digital literacy prevailing in Kerala with deep mobile penetration and easy accessibility of internet has indeed played a significant role in the digital revolution of payment methods even in time of pandemic.

Research Gap:
The main reason for conducting this research is that there are many researches conducted on the digital payments environment after demonetization and impact of covid-19 pandemic on digital payments.
There were no major studies found about the impact of second wave which is more deadly. As the smart phone penetration is increased and India has become the second largest population in terms of internet usage on phones in the world, the other reason for writing this paper was to know whether the consumers of small cities like Varanasi and nearby are also adapting the situation with digital payments or they are still using the traditional payment methods. Is there any significant change in payment methods during the pandemic?

**Research Objectives:**

The study tries to find out the impact of covid-19 on digital payment among the consumers; following are the major objectives of the study:

- To analyse the impact of covid-19 on the digital payment of consumers.
- To identify the payment habits of the consumers in the current situation of pandemic.
- To identify the key differences between the payment patterns of consumer in current and that of pre-covid environment/times.

**Research Methodology:**

To fulfill the objectives of the study more than 200 questionnaires were sent to the people residing in different parts of Varanasi and nearby towns through Google forms as no one wants to have physical interaction with any outsiders, out of which 125 responded. Few consumers were also interviewed on phone call to record their responses. The data was collected from 10th of May, 2021 to 30th of May, 2021. This time frame was chosen to assess the immediate impact of the pandemic on payment pattern. The main reason for going through online questionnaire is that people avoid to have physical interaction with anyone except their family members and the other reason was that the there were some restriction imposed by the local authorities for the movement in the city. Collected data were analysed with MS-Excel and Jamovi version 1.6.23 software. Collected data were feeded in the excel sheet and then analysis was done with the help of Jamovi software for interpreting the findings and results thereof.

**Analysis and Interpretation of Data:**

In this section data collected are analysed and the findings are discussed. The section is divided in two parts. First part deals with the demographic profile of the respondents who responded to the questions asked. In second part the payment patterns with special reference to digital payments of the selected urban consumers are discussed.

**Research Findings:**

Research findings are bifurcated in two parts, demographic profile and payment patterns:

**Demographic profile of the respondents:**

It is given in Table 1 to Table 5:

<table>
<thead>
<tr>
<th>Table 1. (Gender)</th>
</tr>
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<tbody>
<tr>
<td>Levels</td>
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<tr>
<td>-------</td>
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<tr>
<td>F</td>
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<tr>
<td>M</td>
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</table>
Table 1. shows that out of total respondents male respondents are more in numbers with 57%. Female respondents are 43% of the total respondents. Table 2. shows that most of the respondents are post graduate with 77% followed by 21% graduates. Table 3. describes that most of the respondents are of salaried class with 53% followed by students with 40%. Table 4. shows that 66% of the respondents belong to the age group of 20-30. Table 5. shows that most of the respondents are unmarried with 71% of total number.

**Table 2. (Education)**

<table>
<thead>
<tr>
<th>Levels</th>
<th>Counts</th>
<th>% of Total</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG</td>
<td>96</td>
<td>76.8 %</td>
<td>76.8 %</td>
</tr>
<tr>
<td>Ph.D</td>
<td>3</td>
<td>2.4 %</td>
<td>79.2 %</td>
</tr>
<tr>
<td>UG</td>
<td>26</td>
<td>20.8 %</td>
<td>100.0 %</td>
</tr>
</tbody>
</table>

**Table 3. (Occupation)**

<table>
<thead>
<tr>
<th>Levels</th>
<th>Counts</th>
<th>% of Total</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profession</td>
<td>3</td>
<td>2.4 %</td>
<td>2.4 %</td>
</tr>
<tr>
<td>Salaried</td>
<td>66</td>
<td>52.8 %</td>
<td>55.2 %</td>
</tr>
<tr>
<td>Self Emp</td>
<td>6</td>
<td>4.8 %</td>
<td>60.0 %</td>
</tr>
<tr>
<td>Student</td>
<td>50</td>
<td>40.0 %</td>
<td>100.0 %</td>
</tr>
</tbody>
</table>

**Payment Patterns of the Consumers:**

When the consumers were asked that from how long they were using digital payment for their retail transaction, most of them with 60% fell in 1-5 years category. It shows that the digital payments have increased in last few years. Another important question was asked about the preferred mode of digital payments where a significant number with more than 61% responded that they are using either UPI or digital wallets for making digital payments. If we try to establish the relationship between these two findings, it can be interpreted that the new users are mostly using UPI or Digital Wallets for payments.

**Table 4. (Age)**

<table>
<thead>
<tr>
<th>Levels</th>
<th>Counts</th>
<th>% of Total</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>83</td>
<td>66.4 %</td>
<td>66.4 %</td>
</tr>
<tr>
<td>20-30</td>
<td>3</td>
<td>2.4 %</td>
<td>68.8 %</td>
</tr>
<tr>
<td>30-40</td>
<td>29</td>
<td>23.2 %</td>
<td>92.0 %</td>
</tr>
<tr>
<td>Above 40</td>
<td>8</td>
<td>6.4 %</td>
<td>98.4 %</td>
</tr>
<tr>
<td>Below 20</td>
<td>2</td>
<td>1.6 %</td>
<td>100.0 %</td>
</tr>
</tbody>
</table>

A very important finding was that when the respondents (consumers) were asked about the purpose of digital payment, given the options goods purchasing and services, majority of them with 77% responded that they use digital payment for both goods and services. It also shows that the digital payments have increased over the time. When the question was asked that whether the
digital payments save time, a very significant number of respondents strongly agreed to this statement with 50% of total respondents.

Table 5. (Marital Status)

<table>
<thead>
<tr>
<th>Levels</th>
<th>Counts</th>
<th>% of Total</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>36</td>
<td>28.8%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Unmarried</td>
<td>89</td>
<td>71.2%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

When the question was asked that whether there is no need to carry cash with digital payments, a mixed response was recorded where the respondents were almost same in numbers in rating the above statement from strongly agree to disagree with 29% to 20%. But it can also be interpreted that almost half of the number of respondents are agree that it is one of the benefits of using digital payments. A very important finding was that most of the respondents with 74%, responded that the frequency of digital payments have increased during and post pandemic.

There are always two sides of a coin. When the question was asked about the limitation of using digital payments, there were mix responses like awareness, charges involved in using digital payments, connectivity issues, security threats and technical error. Out of the above stated limitations, security threat was the major concern for the consumers (respondents). After collecting the above mentioned responses when they were asked about their future behavior regarding digital payments, most of them (62%) responded that they are very likely to use digital payments, followed by 31% who responded that they are likely to use digital payments in future.

Conclusion:

On the basis of above findings, it has been concluded that:

• There has been a significant increase in the number of consumers using digital payments due to pandemic followed by the lockdown. People have adopted digital payments for their retail transactions. The number of people who have been using digital payments since last few years (1-5 years) are more. Kavitha et.al (2018) also found that electronic payments have made our lives easier. Ardizzi et.al (2020) have also concluded that the government measures to contain the diffusion of infection have intensified the digital payments adoption by consumers. Toh & Tran (2020) have also concluded that businesses and consumers are adapting the change by going digital.

• Majority of the respondents out of those who use digital payments for their retail transactions are using UPI/Digital Wallets as their preferred mode. It shows that UPI/Digital Wallets have gained popularity over the years. This conclusion supports the findings of Praveen & Hebbar (2020) where they found that out of the different methods available only few are popular amongst consumers. Malusare (2021) has also concluded that digital literacy is low among people in India.

• The importance of digital payments during pandemic can also be understood by the finding that those using digital payments, use it for both purchasing goods and consuming services. Ardizzi et.al (2020) & Toh & Tran (2020) have also concluded that the consumers are adapting the change in their lives by using digital payments.
payments and pandemic has intensified the digital payments at point of sale. This finding is against the findings of Murthy (2019) where he found that people of Tier II cities are afraid of using digital payments platforms.

- One of the major reasons for using digital payments is that it saves time as most of the respondents agreed the same. Kavitha et.al (2018), Sarkar & Shailza (2019), Murthy (2019) have also found that one of the important reasons for growing popularity of digital payments is that it saves time.

- The other important reason for using the digital payment is that there is no need to carry cash. This statement has also been agreed by a significant number of consumers. Kavitha (2018) & Murthy (2019) have also concluded that digital payments are ready to use and helps customers to purchase anything at unconventional locations.

- Though the consumers have been using digital payments for years but it was also found that the frequency of digital payment has increased during pandemic. Toh & Tran (2020), Ardzizi et.al (2020) & Pambudi et.al (2021) have also concluded that the digital payments have increased during pandemic. Akilandeswari & Premlatha (2021) also concluded that the perception towards adoption of digital payment methods during COVID-19 is fair and effective.

- The consumers who are less familiar or hesitant in using digital payments, exhibiting such behavior because of the limitations associated with digital payments as security threats, connectivity issues, charges etc. This conclusion supports the findings of Boakye-Adjei (2020) where they concluded that usage of digital channels should be combined with strong efforts to counter financial crime and ensure consumer protection. Sagayarani (2017), Byakod et.al (2018), Murthy (2019), Sarkar & Shailza (2019), Malusare (2021) have also found that security threat is a major concern in the path of digital payments.

- The future of digital payments is very bright as majority of the respondents who are already using digital payments, are very likely to continue the digital payments in future also. Toh & Tran (2020) also concluded that as the COVID-19 pandemic continues, more consumers likely to adopt digital payments. Sarkar & Shaiza (2019) also found that digital payments have taken off in India and there is no chances of it to slow down in future.

**Recommendations:**

On the basis of findings and conclusion following recommendations are given for the marketers and policy makers to adopt in future:

- As it is concluded that consumers have shifted towards digital payments and are likely to adopt the digital payments in future also, the businesses and the traders should encourage more and more digital payments. Almost every big outlet has installed the digital payment system but it is found that small merchants are resistant to change their transaction method, they still prefer cash not digital payments. The respective trade associations should train the traders about the benefits of digital payments and how to use these methods. Financial literacy campaigns should also be conducted time to time to make them aware and comfortable in using digital payments.

- It is also a fact that after so much efforts of governments and other associations, there are number of consumers who are still hesitant to use digital payments for their retail transactions.
due to some limitations. For that reason, banks, government should take necessary steps to remove these barriers in form of better infrastructure and training about the usage of digital payments. As the study finds that security threat is the major concern for most of the consumers, the government and the body responsible to protect the consumers from cyber crime, should make strict rules to save them from such security threats. It was also found that connectivity issue is a major concern and knowing the fact that India lives in villages (almost 70% population lives in villages), the efforts should be made to resolve the connectivity problems in rural areas as well.

**Scope for Future Research:**

- For better results (findings), a study with more sample units can be done on how digital payments emerged in India, which was not possible in this study due to lockdown. The rural consumers can also be selected as sample for better representation of the environment.

**Limitations of the Study:**

- Due to administrative restrictions and social distancing mandates, small sample was selected for the study.
- As the objective was to assess the immediate impact of pandemic on digital payment, the time frame chosen for data collection was only one month.
- The study has taken only urban consumers as sample.

**References:**


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