

Impact of Covid-19 Outbreak in Digital Payments

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Abstract: *The covid-19 pandemic could move the world more rapidly towards digital payments. Payment systems have demonstrated that they are dependable and durable, and continue to command a high level of confidence from the general population. However, closure of businesses and the lockdown have resulted in lower transaction volumes overall. To aid the recovery and lead the emergence into this new normal, it is imperative for the digital payments ecosystem to evolve rapidly and help shape the post-covid era. In this paper we describe the various digital payment methods that are used in the pandemic situation.*

Key Words: *Digital payments, Covid-19, UPI, Mobile wallets.*

1. INTRODUCTION:

The Digital India program is a flagship program of the Indian government whose vision is to transform India into a digital society and a knowledge economy. "Faceless, paperless, cashless" is one of the roles Digital India professes. As part of promoting cashless transactions and converting India to a company with less cash, there are various digital payment methods available. Demonetization is likely to be described as game changers of the Indian economy. On the other hand, Demonetization is leading to boom cashless payments. In this futuristic world, all payments will be made by contactless cards, mobile phone applications and other electronic means while notes and coins will stand abolished. Denmark is reportedly in the forefront in this regard where, under a new proposal paper money transactions will be disallowed, except for now in places like hospitals. The Danish central bank will stop printing currency, and banks will stop carrying cash. In Sweden, it is common practice already for parents to pay pocket money to their children electronically. An environment where everyone is paralyzed at home, Covid -19 is further increasing the need for E-cash transactions. Bought via video is currently being introduced. This will help to further increase electronic transactions. Digital transactions have increased during this time.

According to the latest data from the Reserve Bank of India, the total value of transactions contracted by 46% in April compared to March, driven by the decline in various payment methods, except for direct transfer payments of government benefits when using Aadhar platforms, which registered a jump of 138%. Transactions and payments through various banking channels (checks, NEFT and RTGS, and ATM withdrawal) fell between 26% and 71% in April compared to March. The sharpest contraction was observed in the value of transactions issued by the issuance of checks, which fell 71 percent in April to Rs.1.63 lakh crore in April against Rs 5.65 lakh crore in March.

2. STATEMENT OF THE PROBLEM:

We are a large cash economy: in fact India is the second largest producer and consumer of currency in the world, next only to china. Cost and Longevity are important considerations in currency management. Producing such a large amount of currency is expensive. Both the Government and RBI are keep on moving India towards a less cash economy by encouraging people to shift from cash to electronic payments for all transactions. Digital payments ensure accountability in all the transactions. Since everything is digitally recorded, there is always a way to verify and track transactions. When using cash payments, it could be difficult to hold anyone responsible for any additional expenses.

While India must fully embrace cashless transactions to embark on the transition to a super economy in the coming years, there are still some hurdles to overcome. With IoT and artificial intelligence, it's also important to have a sustainable and lucrative business model that caters to the new age digital ecosystem with a robust cyber security system. Although the challenges are many, a good start is halfway done and the government is already preparing for a safer and brighter future without money. Sectors that will boost digital payments include small grocery stores, online money transfer, OTT (over-the-top), online gaming, online education, ATM withdrawals and broadband usage.

3. LITERATURE REVIEW:

- Duvvuri Subbarao (2016) his book revealed about the suggestion to take the step by the Government. Both the Government and RBI keep on moving India towards a less cash economy by encouraging people to shift from cash to electronic payments for all transactions. The shift from cash to electronic payments is a continuous process and is happening all the time, but its implementation will depend on the public's acceptance, which is in part a question of making it convenient for people to use electronic payments. In ultimate analysis though, facilitating the shift to a less cash economy is a question of meaningful financial inclusion
- Dr.V.Sornaganesh and Dr.M.Chelladurai (2016) in his article revealed about the situation at the time of demonetization. The researcher made an attempt to study about the demonetization impact and financial technology company. The researcher also analyse about payment service sector during the demonetization period. Fast Moving Consumer Goods have extended their credit cycle to address this liquidity situation some of the consumer's companies have extended some credit to the distributors through RTGS. Digital payment is the largest bet in the mobile internet space from the technology point of view.
- G.Sudha and Dr.V.Sornaganesh (2019) article is revealed that after demonetization changes in buying behaviour are clearly explained. After demonetization the main impact is reduce the paper money and increase the digital cash. Most of the customers used digital cash after the demonetization, used through the mobile applications, Internet Banking, etc., for paying their bills.
- G.Sudha and M.Thangajesu Sathish (2020) article is revealed that after demonetization retailers will adopt the digital payment methods. The researcher analysed to find out the payment methods between the pre and post period of demonetization. Most of the retailers used their payments through using various applications.
- M.Thangajesu Sathish, R.Sermakani, and G.Sudha (2020) this study is revealed that the traditional system of cash transaction cannot completely be replaced by card or e-payment system. People can adopt and use their mobile wallets for the payment transaction, fund transfer, purchasing groceries and paying bills etc. The study has discussed the trust is the main factor affecting users' satisfaction directly and it impacts on many users intention to adopt mobile wallets.

4. OBJECTIVE OF THE STUDY:

- To find out the effect of Covid-19 on Digital payments.
- To compare the respondents buying behaviour before lockdown and during the lockdown.
- To analyse the mode of payment done by the respondents before lockdown and during lockdown.
- To find the online payment site used by the respondents.
- To analyse the problems faced by them while during online payment.

5. HYPOTHESIS OF THE STUDY:

1. H_0 – There is no significant difference between the mode of payment while purchasing the product of the respondents before lockdown and during lockdown period.
2. H_0 - There is no association relationship between the demographic factors and problems faced by the respondents while using the digital payments.
3. H_0 - There is no association relationship between the demographic factors and preference of online payment site by the respondents.
4. H_0 - There is no association relationship between mode of payment and buying behaviour of the respondents.

6. RESEARCH METHODOLOGY:

The questionnaire was administrated with a sample size of 220 respondents selected by applying simple random sampling method. In the present study, both the primary data and secondary data have been used. The study is largely based on primary data. Necessary secondary data also have been collected from various sources like newspaper, magazines and websites. The collected data are analysed by applying appropriate statistical tools like t-test, Chi square test and ANOVA test.

7. LIMITATIONS OF THE STUDY:

- The information given by the respondents might be biased because some of them might not be interested in providing correct information.
- Respondent tried to escape some statement. This was one of the most important limitations faced, as it was difficult to analysis and come at a right conclusion.

8. MODES USED FOR DIGITAL PAYMENTS:

Banking Cards (Debit/ Credit/ Cash/ Travel/ Others)

Bank cards offer consumers more security, convenience and control than any other payment method. The wide variety of cards available, including credit, debit and prepaid cards, also offers tremendous flexibility. These cards offer 2-factor authentication for secure e.g secure PIN and OTP. RuPay, Visa, MasterCard are some of the example of card payment systems.

Unified Payments Interface (UPI)

Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and iOS mobile platform(s).

Mobile Wallets

A mobile wallet is a way to carry cash in digital format. You can link your credit card or debit card information in mobile device to mobile wallet application or you can transfer money online to mobile wallet. Instead of using your physical plastic card to make purchases, you can pay with your smartphone, tablet, or smart watch. . Most banks have their e-wallets and some private companies. e.g. Paytm, Freecharge, Mobikwik, Oxigen, mRuppee, Airtel Money, Jio Money, SBI Buddy, itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay etc.

Internet Banking

Internet banking, also known as online banking, e-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

Mobile Banking

Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct different types of financial transactions remotely using a mobile device such as a mobile phone or tablet. It uses software, usually called an app, provided by the banks or financial institution for the purpose.

9. ANALYSIS AND DISCUSSION:

Table-1 Demographic profile of the respondents

Demographic Factor	Options	Frequency	Percentage
Age	Below 30	94	42.7
	31 – 40 years	57	25.9
	41 – 50 years	34	15.5
	51 and Above	35	15.9
Gender	Male	85	38.6
	Female	135	61.4
Marital status	Married	130	59.1
	Un married	90	40.9
Educational Qualification	School	14	6.4
	Degree/Diploma	49	22.3
	Post Graduate	100	45.5
	Professional	46	20.9
	Other	11	5.0
Occupation	Home Makers	24	10.9
	Government employee	34	15.5
	Private employee	112	50.9
	Business	10	4.5
	Student	20	9.1
	Others	20	9.1
Monthly Income	Up to Rs 10,000	55	25.0
	Rs 10,000 – Rs 20,000	48	21.8
	Rs 20,000 – Rs 30,000	39	17.7
	Above Rs 30,000	78	35.5

Table 1 shows that majority (42.7 per cent) of the respondents belong to the age group of below 30 years, majority (61.4 per cent) of the respondents are male, majority (59.1 per cent) of the respondents are married, majority

(45.5 per cent) of the respondents are finished their Post Graduate degree, majority (50.9 per cent) of the respondents are private employee, majority (35.5percent) of the respondents earn income Above Rs. 30,000.

Table-2 Paired T-test for mode of payment before lockdown and during lockdown

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Vegetables & Vegetables	220	.610	.000
Pair 2	Groceries & Groceries	220	.705	.000
Pair 3	Medicines & Medicines	220	.672	.000
Pair 4	Recharge & Recharge	220	.656	.000
Pair 5	Bill payments & Bill payments	220	.573	.000
Pair 6	Hotels & Hotels	220	.644	.000
Pair 7	Other & Other	220	.662	.000

Table 3 - T test on Mode of Payment – Changing behaviour before lockdown and during the lockdown

H₀ – There is no significant difference between the mode of payment while purchasing the product of the respondents before lockdown and during lockdown period.

Factors	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Vegetables	-.114	.506	.034	-.181	-.046	-3.328	219	.001
Groceries	-.145	.529	.036	-.216	-.075	-4.076	219	.000
Medicines	-.232	.554	.037	-.305	-.158	-6.208	219	.000
Recharge	-.173	.617	.042	-.255	-.091	-4.151	219	.000
Bill payment	-.164	.656	.044	-.251	-.077	-3.703	219	.000
Hotels	-.114	.612	.041	-.195	-.032	-2.752	219	.006
Others	-.136	.596	.040	-.216	-.057	-3.391	219	.001

Source: Primary Data

This table reveals the relationship between payment done before lockdown and during the lockdown period. For vegetables, groceries, medicines, recharge, bill payments, payment of hotels, others category of payments are less than the table value. As a result, null Hypothesis is rejected. So, Alternative Hypothesis is accepted. It concludes that there is a significant difference of mode of payment between before and during the lockdown period.

Table-4 Chi square test for demographic factors and problems faced while making payment

H₀- There is no association relationship between the demographic factors and problems faced by the respondents while using the digital payments.

Pearson Chi-Square	Value	df	Asymptotic Significance (2-sided)
Age	23.442 ^a	18	.174
Gender	6.619 ^a	6	.358
Marital status	3.933 ^a	6	.686
Education qualification	34.050 ^a	24	.084
Occupation	58.682 ^a	30	.001
Monthly Income	19.917 ^a	18	.338

Source: Primary Data

From the above table, it shows the relationship between the demographic factors and problems faced by the respondents while using the digital payments. In Age, the calculated value (0.174) is higher than the significance level

at 0.05. According to gender, the calculated value (0.358) is higher than the significant level at 0.05. While considering marital status the calculated value (0.686) is higher than the significance level at 0.05. In Educational qualification calculated value (0.084) is higher than the significance level at 0.05. While considering monthly income the calculated value (0.338) is higher than the significance level at 0.05. It is stated null hypothesis is accepted. It concludes that there is no significant relationship exists between age, gender, marital status, educational qualification, monthly income and problems faced by the respondents while using the digital payment modes.

In Occupation, calculated value (0.001) is lesser than the significant level at 0.05. It shows that null hypothesis is rejected. It results that alternative hypothesis is accepted. So it shows that there is a significant relationship exists between occupation and the problems faced by the respondents while using the digital payment modes.

Table-5 Chi square test for demographic factor and online payment site preferred by the respondents

H₀- There is no association relationship between the demographic factors and preference of online payment site by the respondents.

Pearson Chi-Square	Value	df	Asymptotic Significance (2-sided)
Age	53.274 ^a	15	.000
Gender	12.699 ^a	5	.026
Marital status	11.797 ^a	5	.038
Education qualification	26.652 ^a	20	.145
Occupation	56.545 ^a	25	.000
Monthly Income	21.444 ^a	15	.123

Source: Primary data

The above table shows relationship between the demographic factors and preference of online payment site by the respondents. According to age, the calculated value (0.000) is lesser than the significance level at 0.05. In Occupation, calculated value (0.000) is lesser than the significant level at 0.05. It is stated null hypothesis is rejected. So alternative hypothesis is accepted. It concluded that there is a significant relationship between age, occupation and preference of online payment site.

According to the gender, the calculated value (0.026) is higher than the significant level at 0.05. While considering marital status the calculated p value (0.038) is higher than the significance level at 0.05. In Educational qualification calculated p value (0.145) is higher than the significance level at 0.05. For considering monthly income the calculated p value (0.123) is higher than the significance level at 0.05. As a result, null hypothesis is accepted. It concluded that there is no significant relationship between gender, marital status, educational qualification, monthly income and preference of online payment site.

Table – 6 ANOVA for mode payment and buying behavior of respondents

H₀- There is no association relationship between mode of payment and buying behaviour of the respondents.

		Sum of Squares	df	Mean Square	F	Sig.
Vegetables	Between Groups	2.102	5	.420	.890	.489
	Within Groups	101.148	214	.473		
	Total	103.250	219			
Groceries	Between Groups	.638	5	.128	.220	.953
	Within Groups	123.889	214	.579		
	Total	124.527	219			
Transport	Between Groups	1.765	5	.353	.796	.553
	Within Groups	94.831	214	.443		
	Total	96.595	219			
Hotels	Between Groups	1.537	5	.307	.815	.540
	Within Groups	80.695	214	.377		
	Total	82.232	219			
Others	Between Groups	.862	5	.172	.400	.849
	Within Groups	92.315	214	.431		
	Total	93.177	219			

Source: Primary Data

The table shows the significant difference between mode of payment and buying behaviour of the respondents. As per acceptance of null hypothesis ($p > 0.05$), purchasing and payment mode for vegetables, Groceries, Transport, Hotels, and others are not significant associate between mode of payment and buying behaviour of the respondents during this lockdown period.

10. CONCLUSION:

It is too early to conclude what the changes might look like in each cultural, demographic, and institutional context, but we can be sure that covid-19 is already reinforcing existing trends towards increased digitisation of payments. The Reserve Bank of India last year said it aimed to increase digital transactions to about 15% of gross domestic product by 2021, from nearly 10% at the time. The government is aiming for a billion digital transactions per day as the world's fastest-growing smartphone market empowers consumers to transact at the click of a button. The government has asked banks to encourage their customers to use digital payment methods as a precautionary measure against the Coronavirus outbreak. Meanwhile, RBI has also urged customers to use digital banking facilities amid the Coronavirus outbreak.

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