

## STUDY OF IMPACT OF THE COVID-19 OUTBREAK ON DIGITAL PAYMENT IN INDIA

C. Chaudhari<sup>1</sup> and A.Kumar<sup>2</sup>

<sup>1</sup>Global Business School & Research Centre, Dr. D. Y. Patil Vidyapeeth, Pune, India

<sup>2</sup>Dr. D. Y. Patil B-School, Pune, India

<sup>1</sup>director.gbs@dpu.edu.in, <sup>2</sup>atul.kumar@dpu.edu.in

### ABSTRACT

*Economies world over during the entire financial year 2020/21 were under a severe grip of a once in a century pandemic Corona. But offering resilience through its strong fundamentals, the Indian economy has shown that the pandemic has led to a surge in digital payment in the retail sector. There has been a sizable increase in both volume and value terms in the digital payments (retail) during the pandemic-hit financial year 2020/21 compared with the pre-pandemic financial year 2019/20. The Impact is a positive one and has proven the credentials of the digital payment system in India to handle a large volume of financial transactions through digital platforms. The seeds of e-monetization sown on 8th November 2016 through demonetization have shown their results in enabling the payment system to successfully steer the significant surge in digital payments during 2021/21.*

**Keywords:** Covid-19, Digital payments, Impact. Demonetization

### Introduction

In line with the global economy, the Indian economy, too, during the entire financial year 2020/21 was severely hit by a once in a century pandemic Corona. But true to its resilient nature and thanks to its strong fundamentals, the pandemic hit period has seen a surge in digital payment in the retail sector. There has been a sizable increase in both volume and value terms in the digital payments (retail) during the pandemic-hit financial year 2020/21 compared with the pre-pandemic financial year 2019/20. In the year 2020/21, 37,512.73 million digital payment transactions in the retail segment were recorded compared to 26,493.23 in the pre-pandemic period of the financial year 2019/20, clocking a growth of 42%. The value of transactions showed an overall 3% increase from Rs. 160,923.65 billion to Rs. 165,529.97 billion. The impact is a positive one and has proven the credentials of the digital payment system in India to handle a large volume of financial transactions through digital platforms. This research paper analyses the impact of the Covid-19 outbreak on digital payment in India to assess India's strength to absorb, adjust, and adapt to major economic downturns caused by abnormal events like the Corona outbreak.

### Literature Review

De et al. (2020) have observed that the Covid-19 pandemic has caused an increase in the use

of digital technology due to nationwide lockdowns and social distancing norms. They have explored the possible scenarios of the digital surge and the related research issues that arise. Jain et al. (2020) have pointed out that there is a rise in the use of digital money as people fear that physical currency can lead to the transfer of the Coronavirus. Electronic payments look to be more attractive as there is a fear that money can spread the Coronavirus. Auer et al. (2020) have made a similar observation in their paper. To maintain trust in cash, central banks world-over are actively communicating with customers, urging a continued acceptance of cash. In some instances, measures like sterilizing or quarantining banknotes have been adopted. In their paper, Arner et al. (2020) examine how the digital financial infrastructure that largely emerged in the wake of the 2008 Global Financial Crisis is being, and can be, leveraged to face the immediate challenges presented by the pandemic and also manage the impending economic fallout. Brem et al. (2020) have envisaged that a pandemic like Corona is bound to affect humanity again; however, technologies used during the pandemic may prove helpful in the future. Bisong et al. (2020) have cited that in the year 2020, the World Bank estimates a historical decrease in global remittances of US\$110 billion. The decline in the case of sub-Saharan Africa (SSA) is expected to be about 23.1%.

A study measuring and analyzing the impact on digital payments in the Indian retail segment is not seen on record. It is of interest to carry such a study to see how the Indian digital payment system has handled the crisis and its impact on the pandemic outbreak.

### Methods

The study adopted a comparative analysis approach to assess the impact of the Covid-19 outbreak on digital payment in India. The impact was operationally defined to mean a percentage change in the volume and value of digital payments (retail) in the financial year 2020/21 compared with the financial year 2019/20. FY 2020/21 from its first day, from 1st April 2020 has been a Covid-19 affected period, and till 31st March 2021, not much of respite was seen. On the other hand, a large part of FY 2019/20 (till 23rd March 2020,

when the national lockdown was imposed) represents a period pre-Covid-19. Thus, the changes in the volume and value of digital payments (retail) in FY 2020/21 over FY 2019/20 do capture the impact of the pandemic for a full year. The comparative data in this regard was accessed from the National Payments Corporation of India (NPCI) website (2021). The observation method was used to compare and interpret the changes over the two fiscals, and impact interpretations were accordingly drawn.

### Data analysis and interpretation

Data accessed from the National Payments Corporation of India (NPCI) website (2021) shows the following comparative position of the pre-Covid period and the Covid affected period:

**Table 1: Comparative data of digital payments (retail) for FY 2019/20 & FY 2020/21 (volume)**

Sr. No.	NPCI Operated Systems	F.Y-2019-20	F.Y-2020-21	% Change
	Financial Txns:	Volume (in Mn)	Volume (in Mn)	Volume
1	NFS Inter Bank ATM Cash Withdrawal	4,311.59	3,660.95	(0.15)
2	NACH- National Automated Clearing House	3,401.77	3,626.20	0.07
2.1	APBS Credit (Disbursement based on UIDAI No.)	1,675.12	1,432.69	(0.14)
2.2	ACH Debit	610.95	589.19	(0.04)
2.3	ACH Credit	1,114.96	1,604.20	0.44
2.4	NACH Credit	0.01	0.12	6.94
2.5	NACH Debit	0.72	-	(1.00)
3	CTS Cheque Clearing (Processed Volume)	1,035.89	668.28	(0.35)
4	IMPS	2,579.17	3,278.34	0.27
5	RuPay Card usage at (POS)	822.59	701.99	(0.15)
6	RuPay Card usage at (eCom)	658.13	679.68	0.03
7	AEPS (Inter Bank) Txn over Micro ATM (e.g. Cash withdrawal/ Cash Deposit)	437.19	963.27	1.20
8	BBPS (Bill Payment passing through BBPCU)	145.69	276.08	0.89
9	UPI - Unified Payments Interface	12,518.62	22,330.65	0.78
9.1	BHIM	201.03	204.71	0.02
9.2	USSD 2.0	1.01	1.04	0.03
9.3	UPI excluding BHIM & USSD	12,316.58	22,124.90	0.80
10	USSD 1.0	-	-	
11	NETC	582.59	1,327.28	1.28
	Total Financial Txn	26,493.23	37,512.73	0.42

(Source: [www.npci.org.in](http://www.npci.org.in), 2021)

On an overall basis, there was a 42% increase in the digital payments (retail) volume as recorded by the National Payment Corporation of India. ATM cash withdrawal transaction volume came down by 15%. On the other hand, a major rise of 27% and 78% was

witnessed in IMPS and UPI categories, respectively. Thus, in terms of volume, the number of transactions through digital payments (retail) has recorded a significant increase during the Covid-19 affected period of FY 2020/21.

**Table 2: Comparative data of digital payments (retail) for FY 2019/20 & FY 2020/21 (value)**

Sr. No.	NPCI Operated Systems	F.Y-2019-20	F.Y-2020-21	% Change
	Financial Txns:	Value (in Bn)	Value (in Bn)	Value
1	NFS Inter Bank ATM Cash Withdrawal	16,150.98	14,979.84	(0.07)
2	NACH- National Automated Clearing House	17,629.99	19,032.78	0.08
2.1	APBS Credit (Disbursement based on UIDAI No.)	990.73	1,105.64	0.12
2.2	ACH Debit	6,253.26	5,929.86	(0.05)
2.3	ACH Credit	10,380.40	11,991.37	0.16
2.4	NACH Credit	0.72	5.92	7.19
2.5	NACH Debit	4.87	-	(1.00)
3	CTS Cheque Clearing (Processed Volume)	79,174.61	56,026.11	(0.29)
4	IMPS	23,375.41	29,414.96	0.26
5	RuPay Card usage at (POS)	1,146.81	1,169.38	0.02
6	RuPay Card usage at (eCom)	610.40	926.72	0.52
7	AEPS (Inter Bank) Txn over Micro ATM (e.g. Cash withdrawal/ Cash Deposit)	1,188.58	2,286.29	0.92
8	BBPS (Bill Payment passing through BBPCU)	216.62	429.74	0.98
9	UPI - Unified Payments Interface	21,317.30	41,036.54	0.93
9.1	BHIM	752.85	733.68	(0.03)
9.2	USSD 2.0	1.79	1.72	(0.04)
9.3	UPI excluding BHIM & USSD	20,562.66	40,301.14	0.96
10	USSD 1.0	-	-	
11	NETC	112.94	227.62	1.02
	Total Financial Txn	160,923.65	165,529.97	0.03

(Source: [www.npci.org.in](http://www.npci.org.in), 2021)

On an overall basis, there was a 3% increase in the digital payments (retail) value as recorded by the National Payment Corporation of India. ATM cash withdrawal transaction value came down by 7%. On the other hand, a major rise of 26% and 93% was witnessed in IMPS and UPI categories, respectively. Thus, in terms of value, the amount transacted in the form of digital payments (retail) has recorded a significant increase during the Covid-19 affected period of FY 2020/21. The overall nominal increase of 3% is largely due to a steep decline in the value of transactions of the Cheque Truncation System (CTS) which was 29%. Adjusting the CTS value decline, despite an economic slow-down, the value of digital

payments (retail) largely in the form of IMPS and UPI have shown a sizable surge in the pandemic period.

### Conclusion

The findings of our study show that Covid-19 has positively impacted digital payments in the retail segment. There has been a sizable surge in both volume and value terms in the financial year 2020/21, the pandemic-hit period, compared with the financial year 2019/20, the pre-pandemic period. A couple of important conclusions can be drawn. This surge could be possible because the Indian financial payment system was digitally ready to accommodate a large volume and value of transactions. Seeds

of this were sown on the 8th of November 2016 when the Indian Government went in for demonetization, the other side of e-monetization. Sustained efforts over the period 2017-2020 made the digital surge practical and hassle-free. The digital payment system was important accessible to people from the rural parts of the country. The digital payments system's capacity to successfully process 37,512.73 million transactions in a year indicates its robustness. Another conclusion that can be drawn is that despite being a pandemic-hit period, the value of the digital

payments in the retail did not drop down. On the other hand, they have registered an overall 3% increase from Rs. 160,923.65 billion to Rs. 165,529.97 billion. This speaks of the resilience of the Indian economy to absorb and adjust to economic shocks caused by whatever reasons, including those due to a pandemic of the size and scale of Covid-19. Thus, the digital payment system in the retail segment of the Indian economy has shown a remarkable quantitative and qualitative performance in the pandemic that hit the financial year 2020/21.

### References

1. Arner, D.W., Barberis, J.N., Walker, J., Buckley, R. P., Dahdal, A. M., & Zetzsche, D. A. (2020). Digital finance & the COVID-19 crisis. University of Hong Kong Faculty of Law Research Paper, (2020/017).
2. Auer, R., Cornelli, G., & Frost, J. (2020). Covid-19, cash, and the future of payments (No. 3). Bank for International Settlements accessed from RePEc:bis:bisblt:3
3. Bisong, A., Ahairwe, P. E., & Njoroge, E. (2020). The impact of COVID-19 on remittances for development in Africa. Maastricht: European Centre for Development Policy Management. Discussion Paper No. 269. Accessed from [www.ecdpm.org/dp269](http://www.ecdpm.org/dp269)
4. Brem, A., Viardot, E., & Nylund, P. A. (2021). Implications of the coronavirus (COVID-19) outbreak for innovation: Which technologies will improve our lives?. *Technological forecasting and social change*, 163, 120451. <https://doi.org/10.1016/j.techfore.2020.120451>
5. Jain, A., Sarupria, A., & Kothari, A. (2020). The Impact of COVID-19 on E-wallet's Payments in Indian Economy. *International Journal of Creative Research Thoughts*, 2447-2454.
6. Kumar, A. (2019). A Study of Significant Characteristics of E-payment Regime in India. *MERC Global's International Journal of Management*. Vol. 7, Special Issue 1, May, pp. 168-174.
7. Kumar, A., Gawande, A. and Brar, V. (2020). Marketing Tactics in Times of Covid-19. *Vidyabharati International Interdisciplinary Research Journal*. Vol. 11, Issue 01, June, pp. 263-266.
8. Kumar, A., Gawande, A. and Brar, V. (2021). Covid-19 Pandemic and Its Likely Effect on Economic Development: An Opinion Survey of Professionals. *International Journal of Multidisciplinary: Applied Business and Education Research*, Vol. 2, No. 5, pp. 388 – 397.
9. National Payments Corporation of India. (2021). Statistics of NPCI - National Payments Corporation of India. Retrieved 23 April 2021, from <https://www.npci.org.in/statistics>
10. Pandey, N., & Pal, A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. *International Journal of Information Management*, 55, 102171. <https://doi.org/10.1016/j.ijinfomgt.2020.102171>.