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Digital India: A Study on Digital Payments System during Pandemic Covid-19

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ABSTRACT:

The Indian government has taken a number of steps to promote and support digital payments in the country. The government's "Digital India" initiative aspires to build a "digitally empowered" economy that is "Faceless, Paperless, Cashless." Digital payments come in a variety of forms and mechanisms.Digital payments, often known as E-payments, are a method of making electronic payments between a payer and a payee. Both the payer and the payee use digital techniques to conduct any type of transaction. For users, consumers, and the economy, digitalization brings openness, correctness, reliability, and security.

This paper focuses on comparing various digital payment options and attempting to shed light on the need for and importance of a digitalized economy in terms of financial transactions, as well as assisting citizens of the country in shifting their mindsets toward various different modes of cashless transactions, particularly following the demonetization of the economy in the year 2016 and Covid-19Pandemic in the year 2020.

INTRODUCTION:

The Digital India programme is the government of India's flagship initiative, with the goal of transforming India into a digitally enabled society and knowledge economy. One of Digital India's stated goals is to be "faceless, paperless, and cashless."The Government of India has given the promotion of digital payments top priority in order to bring every segment of our country into the formal economy.The vision is to deliver seamless digital payment services to all Indian people in a way that is accessible, easy, affordable, quick, and secure(MEITY). The study of (Franciska & Sahayaselvi, 2017), concluded that Digital payments will become increasingly important in the future, necessitating a shift in people's habits to accept them. Cashless transactions are not only safer than cash transactions, but they also take less time. It also helps in record of the all the transaction done. Mobile networks, the Internet, and power are all expanding their reach, bringing digital payments to more rural locations. As a result, it is undeniable that the future transaction system will be cashless.

In his budget speech, the Hon'ble Finance Minister announced several initiatives to promote digital payments, including a target of 2,500 crore digital payment transactions through the Unified Payments Interface (UPI), Unstructured Supplementary Service Data (USSD), Aadhar Payment, Immediate Payment Service (IMPS), and Debit Cards in fiscal year 2017-18 after Demonetization. This effort on "Promotion of Digital Transactions including Digital Payments" has been assigned to the Ministry of Electronics and Information Technology (MEITY). To facilitate digital payments

across the country, MEITY is working on various strategies and concepts with a variety of partners, including banks, central ministries/departments, and states.
To realize the government's aim of making citizens of this country digitally enabled, MEITY is working to develop digital payment infrastructure and raise awareness through digital payment campaigns with all stakeholders. Citizens have a variety of choices for doing digital transactions.MEITY has established a dedicated 'Digidhan Mission' to develop strategies and techniques in partnership with all stakeholders to promote digital payments and raise awareness and has taken a number of steps to promote digital payments and meet its goals in a mission-like manner.

National Payment Corporation of India (NPCI) urges through press release that India to use digital payments to reduce social contact and contain Covid-19 outbreak NPCI, along with banks and ecosystem partners, ready and committed to help every citizen through robust digital payment infrastructure(NPCI, 2020). NPCI was established in 2008 as a holding company for India's retail payment and settlement systems. The National Payments and Settlements Institute (NPCI) have built a strong payment and settlement infrastructure in the country. It has revolutionized the way people pay in India with a variety of retail payment products including as RuPay card, Immediate Payment Service (IMPS), Unified Payments Interface (UPI), Bharat Interface for Money (BHIM), BHIM Aadhaar, National Electronic Toll Collection (NETC Fastag) and Bharat BillPay etc. Mr. DilipAsbe, NPCI MD & CEO, stated that NPCI, in collaboration with banks and ecosystem partners, is prepared and committed to assisting every citizen during the present lockdown period through a robust digital payment infrastructure. "Every resident has been asked to stay at home during the current lock-down situation. To stay safe, they recommended all vital service providers and users to migrate to digital payment methods."The objectives of the Government of India for imposing of digital platform are to (i) Make it easier for an individual to execute card/digital transactions. (ii) At the individual level, reduce the risks and expenses of dealing with cash. (iii) Reduce the cost of cash management in the economy.(iv) To promote credit availability and financial inclusion, build a transaction history. (v) Reduce tax evasion.(vi) Counterfeit money's impact should be reduced.

Study of (Nirmala & Parvathi, 2021)finds that the pandemic may hasten the world's transition to digital payments. Circumstances are driving the adoption of digital payments. Payment systems have shown to be efficient and long-lasting, and the general public continues to have a high level of trust in them. The study of (Manochaa, Kejriwal, & Upadhyay, 2019) describes many types of digital payment transactions, each with its own set of characteristics. The features enable an individual to select a transaction method based on their needs and the amount of money to be sent. The study also found that while demonetization aided in the rise of digital payments, there is still a pressing need to boost the pace of online transactions and move toward a cashless society. Cash transfers continue to be one of the most popular types of digital payment transactions. The elements that directly affect the cashless economy must be considered in order to improve the rate of cashless transactions. Awareness campaigns and programmes must be launched by the government, financial intermediaries, and banks. Finance or bank-related service providers must assure security and transaction convenience, so that personal information is not compromised and dependable services are supplied to each user. The rate of digital payments can be improved by managing the reasons, which will have a direct impact on the cashless economy.

METHODOLOGY:

Themethodologyused in the study of(Ganesh & Rahman, 2018)to determine the determinants the adopting of e- banking among bank customers, the opinion data pertaining to various elements of e-banking / internet banking were collected from randomly selected respondents among the population are subjected to statistical analysis such as one way t-test. Similar study found in (Manochaa, Kejriwal, & Upadhyay, 2019), who used to interpret the results of their study on the impact of demonetization on digital payment transactionsthrough paired sample t-test. The methodology is used for the paper is secondary data published by NPCI and Government. This study used sample t-test to describe significant change in Physical and Digital Payment in the last 7 years including Covid-19 period. The hypothesis results can easily be interpreted in terms of comparing the p- value, which must be less than 0.05 for P(T<=t) one-tail. Moreover the value can also be interpreted by means of comparing the value of t Critical one-tail with t-Stat value.

OBJECTIVES OF THE STUDY:

Objectives:

1.To study the concept of Digital payment system and cashless transactions.

2.To know the Impact of Digital payment system

3.To know the advantages of cashless transactions

4.To know the opportunities and challenges of e- payment system in India

1. To study the concept of Digital payment system attitude of people towards adoption of digital payments in India.
2. To know the Impact of Digital payment system and compare with Physical payment system.

HYPOTHESIS:

H0: There is no significant difference between Physical and Digital Payment system and no impact of Pandemic Covid-19 impact on digital payment transactions in India.

H1: There is significant difference between Physical and Digital Payment system and there is an impact of Pandemic Covid-19 impact on digital payment transactions in India.

ANALYSIS AND INTERPRETATION:

Among the electronic modes of payment, the number of transactions using Real Time Gross Settlement (RTGS) increased by 5.7 percent during the year, with a total value of 1,056 lakh crore, a decrease of 19.5 percent from the previous year, owing to a reduction in large value corporate transactions in line with the slowdown in economic activity. The RTGS service was operational at 1,75,947 branches of 227 banks at the end of March 2021. During the year, the number of transactions processed through the National Electronic Funds Transfer (NEFT) system increased by 12.7%. The NEFT service was offered at 1,75,283 branches of 225 banks at the end of March 2021.

The number of card payment transactions made with credit and debit cards declined by 19.0 percent and 20.6 percent, respectively, in 2020-21. During the same time period, the value of credit card transactions decreased by 13.7%, while debit card transactions decreased by 5.9%. Prepaid Payment Instruments (PPIs) had a 7.4% decline in volume this year, compared to a 15.7% increase the year before, while transaction value fell 8.3% to 1.97 lakh crore, down from 1.98 lakh crore the year before. As of end-March 2021, the number of Points of Sale (PoS) terminals had risen by 6.5 percent to 47.20 lakh, and the number of Bharat Quick Response (BQR) codes had risen by 76.0 percent to

35.70 lakh. Furthermore, the number of ATMs climbed by 2.0% from 2.34 lakh at the end of March 2020 to 2.38 lakh at the end of March 2021.

Table-1
Status of Physical and Digital Transactions in India

Total Physical/Digital Transactions (Volume in Mn)							
NPCI Operated Systems	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Total Physical Financial Txns:	3,624.93	5,149.96	6,266.37	7,123.10	8,245.33	9,186.44	8,918.69
Total Digital Financial Txns:	84.54	256.46	872.03	2,734.49	8,560.92	17,306.80	28,594.04
Source: NPCI							

Chart-1
Total Financial Transactions

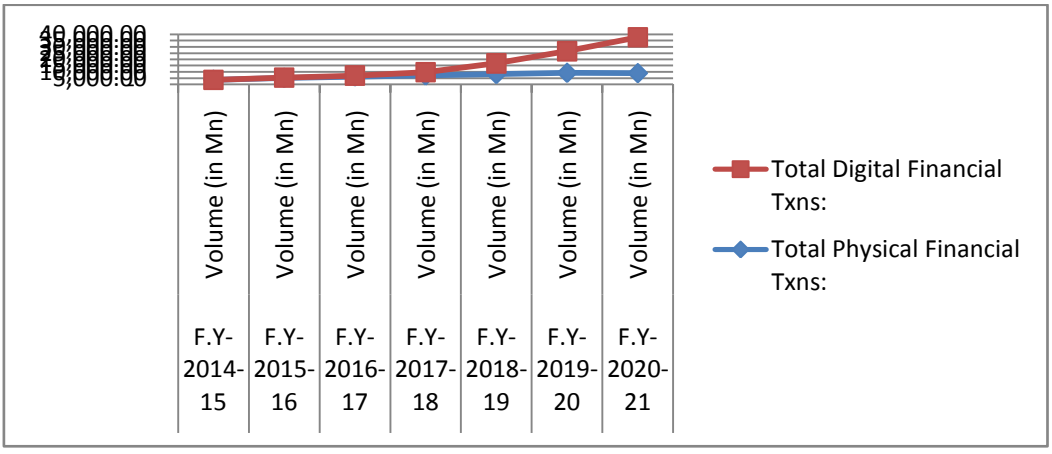
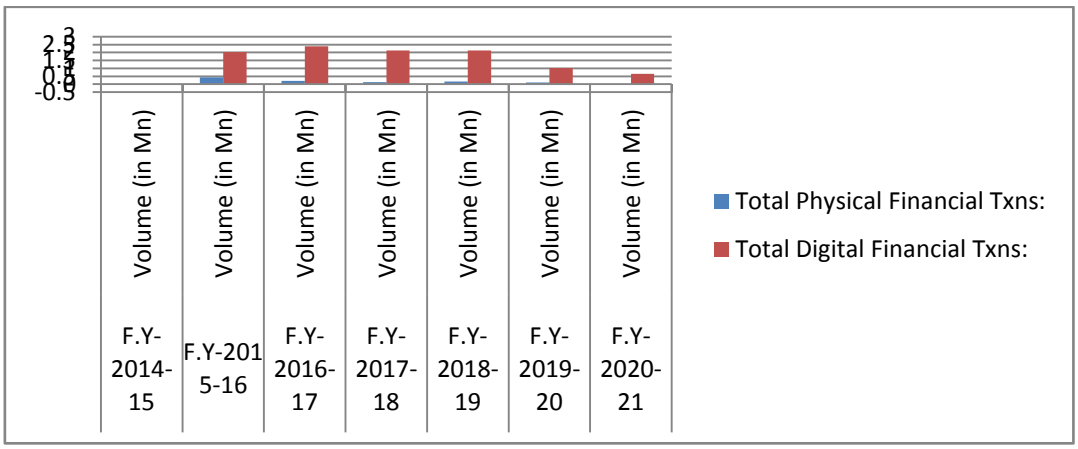


Chart-2
Year on Year Growth

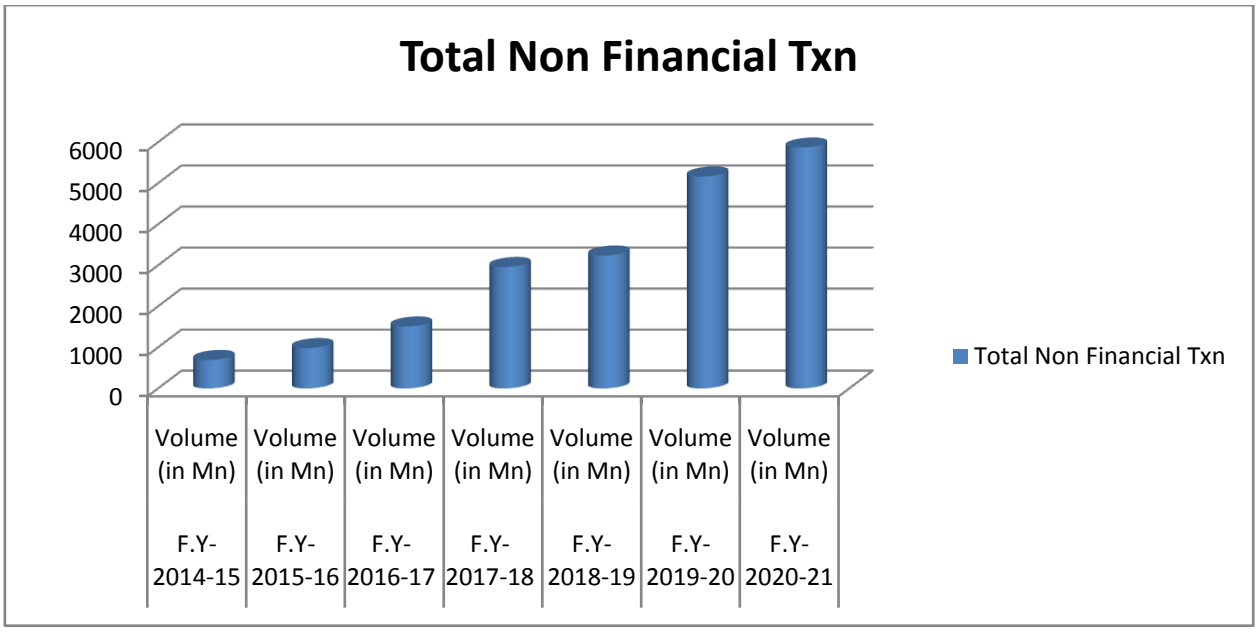


From the above chart- 1 and 2, it is clear that the Indian government is obstinate on using digital payment methods to increase openness and accountability in the country. Since 2014-15, the use of digital payment methods has increased while the use of traditional payment methods has decreased. In the table above, it can be seen that the number of electronic transactions has been increasing from 2013-14 to 2017-18. Especially during demonetization declared by the government in the year 2016, the digital payment in the country had been increased enormously.The use of RTGS, electronic clearing, card payments, mobile wallets, and mobile banking has surged by about 75%. In May 2014, the RBI enabled minors over the age of ten to use mobile banking. They are able to access and use mobile banking services. They can use mobile banking to open fixed and savings accounts; SBI and ICICI are the banks that offer these services to minors. According to the National Payments Corporation of India (NPCI), there are 104500 ATMs in India, with PSBs accounting for 59 percent of all ATMs, followed by Pvt.SBs and cooperative banks.The number of electronic transaction are in increase trends, as compare to the 2014-15 to 2020-21IMPS, Rupay Card usage in POS, Rupay Card usage in e-com, Bill Payment and UPI Payments are increased by more than 100%. The banking sector plays crucial roles to prevent pandemic covid-19. The physical financial growth YoY basis turns to -3% in the year 2020-21 whereas, Digital financial growth increased to 65% in the year 2020-21. It is clear that to prevent contamination of virus among public, banking sector helps the economy by providing its services digitally.

Table-2
Total Digital Non-Financial Transactions in India

Non- Financial Transactions (Volume in Mn)								
Sr No.	**NPCI Operated Systems**	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
1	NFS Inter Bank Txn over ATM (e.g. Balance inquiery/ Mobile No. registration etc.)	693.97	863.00	1102.02	1273.35	1246.60	1117.00	932.12
2	AEPS (Inter Bank) Txn over Micro ATM (e.g. Balance inquiry/ Mini statement etc.)	0.00	0.33	9.55	95.10	269.56	387.47	999.09
3	AEPS (Intra Bank) UIDAI Authentication over Micro ATM	0.00	94.30	318.88	781.17	1170.08	1505.43	1958.70
4	eKYC Verification (Successful Txn)	0.00	12.63	47.55	155.95	152.74	89.56	150.67
5	Demographic Queries(Authenticated UID)	0.00	12.98	31.68	639.02	136.33	34.47	39.07
6	AEPS Tokenization	0.00	0.00	0.00	0.00	0.00	1253.15	246.09
7	BBPS (Bill Fetch)	0.00	0.00	0.03	15.00	264.00	778.09	1544.82
8	QSAM	0.00	0.00	0.00	7.65	0.00	0.00	0.00
9	Total Non Financial Txn	**693.97**	**983.25**	**1,509.71**	**2,959.59**	**3,239.31**	**5,165.17**	**5,870.55**
Source: NPCI								

Chart-3
Total Digital Non-Financial Transactions



There is no money exchanged between accounts with Non-financial transactions (NFTs). NFTs at ATMs include changing user information, checking balances, printing mini statements, changing PINs, and requesting a cheque book, customers do not need to visit bank branches for anything other than cash or financial transactions. If we look at year-over-year growth, we can see that in 2020-21, there will be a 13 percent increase.

As a result, the pandemic-driven rapid shift to digital technology will continue during the recovery. In years to come, 2020 will be remembered as the year that transformed everything. The internet and e-commerce sectors, which have thrived amid the COVID-19 issue, have experienced extraordinary and unexpected development.

Table-3
T-Test Result

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Digital Transactions	14	15851.37	9223.37	5762.14
Physical Transactions	14	9223.37	9223.37	9223.37

In order to test the hypothesis, T Test was carried out in Table-3. The Average mean of Digital Transaction is 15851.37and Physical Transaction is 9223.37 with Standard Deviation for both the case is 9223.37. The results of the analysis are given in Table- 4 which gives the result of T Test computation on the basis of Digital and Physical Transactions.

Table-4
T-Test Significance Level

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Digital Transactions	2.751	13	.017	9223.37	3403.01	28299.73
Physical Transactions	4.079	13	.001	9223.37	9223.37	9223.37

The result of T Test computation shows that there insignificant differences have been observedamongthe attributes of digital payment mode and physical transaction mode. The hypothesis results now can be interpreted in terms of comparing the p- value=0.017 and 0.001, which is less than 0.05 for P (T<=t) one-tail with degree of freedom 13. Moreover the value can also be interpreted by means of comparing the value of t Critical one-tail with t-Stat value. Hence we reject the Null Hypothesis (H0) and accept Alternative Hypothesis (H1) and conclude that there is no significant difference between Physical and Digital Payment system and there is positive impact of Pandemic Covid-19 impact on digital payment transactions in India.

Table-5
Effect Size

One-Sample Effect Sizes					
				95% Confidence Interval	
		Standardizer[a]	Point Estimate	Lower	Upper
Digital Transactions	Cohen's d	9223.37	.735	.130	1.318
	Hedges' correction	9223.37	.692	.123	1.240
Physical Transactions	Cohen's d	9223.37	1.090	.409	1.745
	Hedges' correction	9223.37	1.026	.385	1.642

Here **a** denotes the denominator used in estimating the effect sizes. Cohen's d and Hedges' correction are uses for sample standard deviation. Cohen suggested that d=0.2 be considered a “small” effect size, 0.5 represents a “medium” effect size and 0.8 a “large” effect size. This means that if the difference between two groups' means is less than 0.2 standard deviations, the difference is negligible, even if it is statistically significant. Here the effect sizes to measure the sizes of associations between variables or the sizes of differences between group means are justifiable.

CONCLUSION:

The paper discusses numerous types of digital payment transactions, each with its own set of characteristics. The features enable an individual to select a transaction method based on their needs

and the amount of money to be sent. The study also found that while demonetization aided in the rise of digital payments followed by Pandemic Covid-19. But there is still a pressing need to boost the pace of online transactions and move toward a cashless society. Among all other types of digital payment transactions, cash transactions remain one of the most popular for the poorer section of the society. Illiteracy is one of the causes for not achieving 100% digital India. The elements that directly affect the cashless economy must be considered in order to improve the rate of cashless transactions. Awareness campaigns and programmes must be launched by the government, financial intermediaries, and banks. Finance or bank-related service providers must assure security and transaction convenience, so that personal information is not compromised and dependable services are supplied to each user. The rate of digital payments can be improved by managing the reasons, which will have a direct impact on the cashless economy.

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