
The impact & usage of digital payment system in India during the Covid-19 pandemic

Ajay Prasad Nautiyal¹, Sapna Bisht², Kapil Rajput³

¹Department of Computer Science Engineering Uttaranchal University,
ajaynautiyal16@gmail.com

²Department of Civil Engineering Uttaranchal University, sapnabisht18@gmail.com

³Department of Computer Science Engineering Uttaranchal University,
kapilrajput1984@gmail.com

Abstract.

The COVID-19 pandemic spread the use of digital & online modes of payment, according to the Annual report 2020-21 by RBI. The prospects for FinTech in India's financial system in 2021-2022, according to the RBI, would be determined by the degree to which digital usage has become entrenched. During the lockdown period of the Covid19 pandemic, the usage of online transactions and electronic currency transfers was motivated. Furthermore, the use of digital payment and e-wallets should be motivated to avoid unnecessary bank visits, apply social distancing, avoid physical contact while exchanging cash in the presence of the COVID-19 pandemic in India, and to give a positive attitude among Indian people toward cashless economy adoption. The goal of this research was to look into the use of digital payments and e-wallets.

Keywords. Covid-19, digital payment, lockdown, e-wallets.

1. INTRODUCTION

During the Covid19 lockdown, the use of electronic transactions skyrocketed in order to reduce the number of physical visits to bank branches around the country (by Oliver-Balch 2020). The number of people visiting the bank branch was also reduced as a result of the lockdown. Due to the growth of electronic commerce and the increased use of digital and virtual payment methods, the Global Payment Gateways Processing Solutions Market (GPGPSM) forecasted the trend of the payment gateways industry up to 2024, amid and after Covid-19, and the global payment market is expected to grow \$23.40 USD billion in the years 2020-24. (by Jesse Maida (2020)) [1].

Instead of physical transactions, digital payment and e-wallets allow consumers to conduct cashless transactions via mobile applications or online banking. Open digital wallets, semi-closed e-wallets, and closed e-wallets are the three categories of e-wallets. Some e-wallet

applications do not require a bank account, and users can conduct digital transactions using digital money deposited into the application (Octal IT Solution, 2020). In the near future, the growing smartphone users will be a critical element in boosting the number of digital wallet users. In a variety of situations, including pandemics and lockdowns, e-wallets and other electronic cash transfer systems come in handy (by RBI Governor, in 2020) [1].

Many players offer e-wallet services to customers in India, including Google Pay, Paytm, FreeCharge, PayPal, Phone Pay, PayUMoney, and MobiKwik, to name a few. Furthermore, e-wallets will help to minimise the need for physical contact during pandemic situations, as well as the need to visit a bank branch to transfer money from a bank account during the Covid-19 lockdown period.

We never expected COVID-19 would turn out to be such a pandemic calamity for the entire human species when the news first broke. Furthermore, we Indians are not immune to the pandemic's effects [2]. Academic lectures moved from offline to online, corporate employment moved from offline to online, travel ticket booking moved from offline to online, and online food orders grew as a result of COVID-19. Similarly, payment systems, which are at the heart of all transactions, have seen an increase in people switching from offline to online [2].

2. STATEMENT OF PROBLEM

The Union Government's declaration of a statewide lockdown beginning on March 24, 2020, had a significant impact on how business was done during lockdown days. To avoid Covid19, social distancing and avoiding physical contact are used as preventative methods. As a result, clients are encouraged to use the convenience of digital cash transactions and payment methods to eliminate unwanted physical visits and touch while transferring or remitting money [3]. As a result, people began to use digital, mobile, and online wallets to cope with the covid-19, paving the way for more cashless payments in the country. To overcome the challenges to effective adoption in the consequence of Covid19, it is necessary to study the use of digital payment systems as well as users' preferences and motivations for using digital currency transactions [4].

3. LITERATURE REVIEW

Anup Kumar et al. (2017) the effect of perceived grievance and safety on the decision to keep using mobile wallets in India. The researcher conducted an empirical investigation on the desire to keep using e-wallets using a confirmatory theoretical approach. The results support the Technology Adoption Model hypothesis that perceived usefulness and ease of use have a significant and favorable impact on perceived security and that perceived security and grievance redressal have a favorable and mediating effect on a developing country's desire to use e-wallets [5].

Biplab Datta & Amit Shankar (2018) delivered an offline and online survey to investigate the systematic equation model for factors impact the adoption of mobile payments in India. To assess the adoption of TAM in the context of Indian clients, the researcher used a descriptive and hypothetical research design. The results demonstrate that whereas personal inventiveness and subjective norms do not significantly and favourably influence Indian consumers' propensity to use mobile payment, perceived utility, trust, and self-efficacy do [6].

Pranav Mishra & Bhawna Mukaria (2019) attempted to Examine the variables affecting Indian e-wallet customers' opinions of public and private mobile wallet providers. The researchers used a hypothetical study design and survey approach to obtain primary data from 433 respondents in the form of a structured questionnaire. Using IBM SPSS software, the Independent Sample t test was performed. According to the findings, public sector e-wallet providers have a lower perception than private sector operators. Between PSU and private sector digital-wallet service providers in India, there is a considerable mean difference in perceptions of difficulties, customer service, and personal risk [7].

According to G.Sudha and M.Thangajesu Sathish's (2020) article, shops will use digital payment systems following demonetization. The researcher looked at payment methods before and after demonetization to see how they changed. The majority of retailers accepted payments through a variety of apps.

According to RBI (January 2021), digital payments in India have seen an exponential surge since the Covid-19 pandemic hit in March 2020. The Reserve Bank of India (RBI) reported a 40 percent year-on-year (YoY) increase in the index to 304.06 in September 2021, up from 217.74 in September 2020, indicating that India's digital payments are deepening [8].

According to the Statista Research Department (Jan, 2022), the results of a poll among Indians on the impact of COVID-19 and its thereafter lockdown, a huge number of respondents utilised Paytm to conduct e- payments. Over 30% of those who took part in the poll said they had increased their use of online payments. On March 24, 2020, India went under lockdown, the world's largest, confining 1.2 billion people, which was extended until 3rd May, 2020 [9].

4. OBJECTIVE OF THE STUDY

- To examine how digital payments were used during COVID-19.
- To investigate the demography characteristics of Indian digital-wallet users.
- To learn more about respondents' e-wallet preferences and motivations.

5. ANALYSIS AND INTERPRETATION

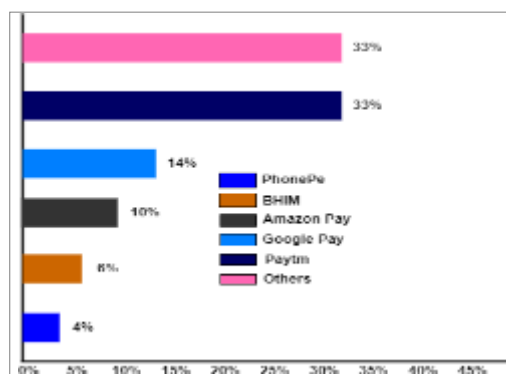


Figure 1. COVID-19 Impact- on e-payment applications usage in India (April -2020) (Source - www.statista.com)

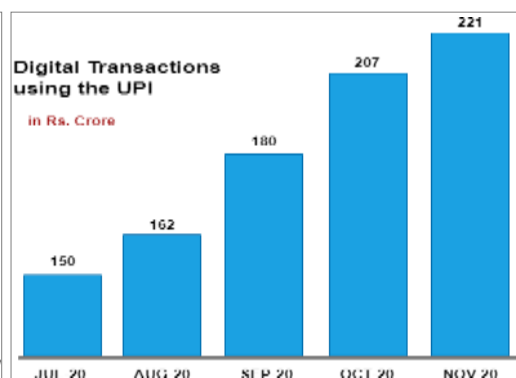


Figure 2. Digital Transactions using the UPI (in Rs. Crore) in 2020 (Source - www.paytm.com)

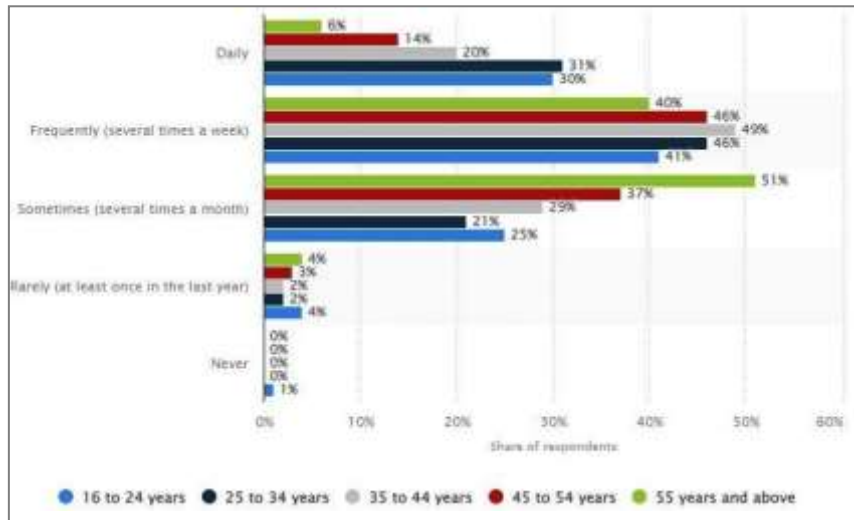


Figure 3. Frequency of using digital payment services by Indians during 2020, age group (Source - www.statista.com)

Table 1. Cumulative Payment Transactions in 2020

Month	Transaction No. (Crore)	(%)Growth (month - month)
January 2020	436.43	
February, 2020	847.44	94.17(%)
Mar, 2020	1262.84	49.02(%)
April, 2020	1566.22	24.02(%)
May, 2020	1890.23	20.69(%)
June, 2020	2298.85	21.62(%)
July, 2020	2699.06	17.41(%)
Aug, 2020	3132.43	16.06(%)
Sept, 2020	3620.51	15.58(%)
Oct, 2020	4108.29	13.47(%)
Nov, 2020	4623.25	12.53(%)
Dec, 2020	4764.28	03.05(%)

As shown in Table 1, Since January 2020, there has been an increase in the number of digital payment transactions. From January to February 2020, it increased by over 94.17 percent, from 436.43 crore to 847.44 crore in transactions. In addition, the proportion of increase was decreasing. The percentage change from February to March 2020 was 49.05 percent. From November 2020 to December 2020, it boosts the percentage decline to 03.05 percent. The total number of transactions in December was 4764.28 crore [10].

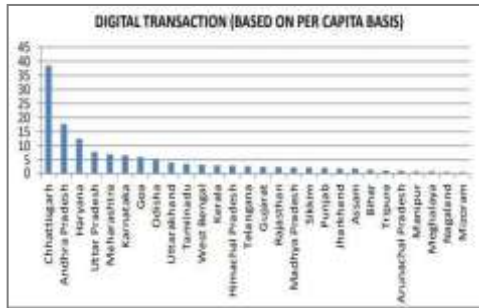


Figure 4. State-wise distribution of online Payment Transaction (BHIM, Rupay Card on POS only) (Source-RBI)

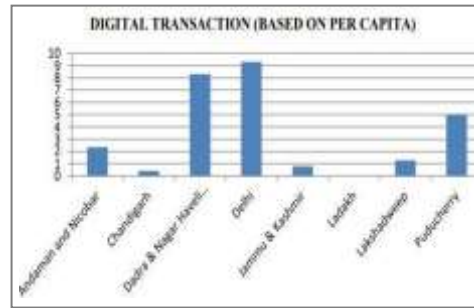


Figure 5. UT State-wise distribution of Digital online Transaction (BHIM Rupay Card on POS only) (Source- RBI)

As shown in FIGURE 4 and FIGURE 5, Chhattisgarh was the highest number of digital transactions per capita (38.481), followed by Andhrapradesh (17.68%) and Haryana (12.42%). The next was UP at 7.73. It is 6.94 in Maharashtra, Manipur, Meghalaya, Nagaland, and Mizoram had the fewest digital transactions per capita, with 0.8, 0.765, 0.584, and 0.548 respectively. There are 8.311 digital transactions in Union Territory, followed by 4.991 in Dadra & Nagar Haveli & Daman and Diu [11].

Figure 6 shows the monthly growth of BHIM-UPI transactions from April 2020 to March 2021 as per the DigiDhan Govt. of India dashboard [12].

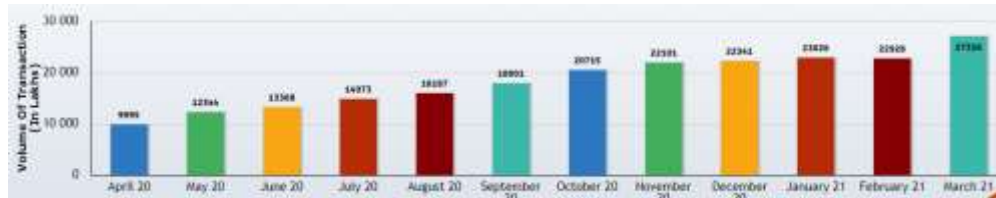


Figure 6. Monthly Growth Of BHIM-UPI Transactions (Apr 2020-March 2021) (Source -<https://digipay.gov.in/>)

Figure 7 shows the monthly growth of BBPS (Bharat BillPay) transactions from April 2020 to March 2021 as per the DigiDhan Govt. of India dashboard [12].



Figure 7. Monthly Growth Of BBPS (Bharat BillPay) Transactions (Apr 2020-March 2021) (Source -<https://digipay.gov.in/>)

Figure 8 shows the monthly growth of BHIM-UPI transactions from April 2021 to March 2022 as per DigiDhan Govt. of India dashboard [12].



Figure 8- Monthly Growth of BHIM-UPI Transactions (Apr 2021-March 2022) (Source -<https://digipay.gov.in/>)

Figure 9 shows the monthly growth of BBPS (Bharat BillPay) transactions from April 2021 to March 2022 as per DigiDhan Govt. of India dashboard [12].



Figure 9- Monthly Growth Of BBPS (Bharat BillPay) Transactions (Apr 2021-March 2022) (Source -<https://digipay.gov.in/>)

The National Payments Corporation of India (NPCI) is an umbrella body established by banks under the direction of the RBI that is de facto responsible for all retail payments made in India. It serves as a middleman for a variety of digital payment methods, including IMPS, UPI, and Bharat BillPay, among others. Examining the value and volume of these transactions from January 2020 to June 2020, as depicted in Figure 10, demonstrates a decline in payments in India as a result of COVID-19 and related containment efforts, but a quick recovery in consecutive months across several modalities [13].

The lockdown period was characterized by significant restrictions on consumer spending as well as the deferral of multiple ordinary monthly payments. Consumers were left in a state of limbo when it came to making decisions about the amount and timeliness of pending and unpaid bills. This is reflected in a 49% drop in the value of overall NPCI payment goods across all digital payment modes in April 2020, compared to payments in March 2020. [13].

FIGURE 11 shows the Cumulative Payments Transactions (Last 12 Months – Oct 2021 to up to 12 Sep 2022) [12].



Figure 10. Payments done through NPCI between Jan 20 to Jun 20 (Source - NPCI payments database as accessed in July 2020.)

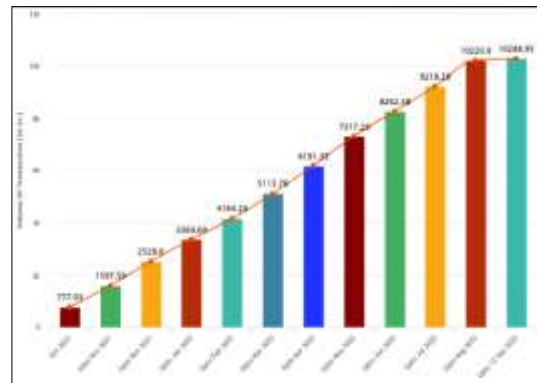


Figure 11. Cumulative Payments Transactions (Last 12 Months – Oct 2021 to up to 12 Sep 2022)

6. CONCLUSION

According to the survey, users of e-wallets have expressed a strong desire to adopt them. In every corner of the country, peers, friends, and family members have been taught the need of using an e-wallet during a pandemic to reduce physical monetary transactions. Existing users of digital payment and electronic wallets are encouraged to educate others about the importance, performance, use, and benefits of digital payment over traditional payment methods. Service providers believe that better design and content will persuade more customers to use and use e-wallets in their daily lives in pandemics and other similar emergency scenarios. Furthermore, in order to avoid the Covid19 virus or other similar epidemics, digital payment and e-wallets can be utilized to conduct monetary transactions.

7. REFERENCES

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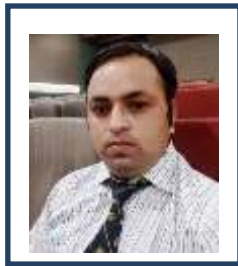
Biographies



Mr. Ajay Prasad Nautiyal received the bachelor's degree in computer science & engineering from Uttarakhand Technical University in 2013, and the perusing in masters in computer science & engineering from Kurukshetra University, Haryana. He is currently working as Lecturer at the Department of Computer Engineering, Uttaranchal University. His research areas include IoT, deep learning, data science, data analytics and social network analysis. He has published many patents and conference papers in reputed journals.



Ms. Sapna Bisht received the bachelor's degree in Civil Engineering from Graphic Era University in 2013, and master's in Environmental engineering from Uttarakhand University, Dehradun. She is currently working as an Assistant Professor at the Department of Civil Engineering, Uttarakhand University. Her research areas include Civil Engineering, Environmental Sciences, IoT, data science, data analytics and social network analysis. She has published many patents and conference papers in reputed journals.



Mr. Kapil Rajput received the bachelor's degree in computer science & engineering from UPTU University in 2009, and master's in computer science & engineering from Uttarakhand University Dehradun. He is currently working as an Assistant Professor at the Department of Computer Science Engineering, Uttarakhand University. His research areas include ML, IoT, data science, data analytics and social network analysis. He has published many patents and conference papers in reputed journals.