

Exploring the Shift in Consumer Behavior toward Cashless Payments after the Covid-19 Pandemic

Bijin Philip¹; Ayushi Gupta²
Department of Management
Kristu Jayanti College Autonomous
Bangalore, Karnataka, India

Abstract:- The COVID-19 outbreak disturbed daily life worldwide, prompting a swift shift toward digital payments as consumers increasingly sought safer, contactless options over cash transactions. Both individuals and businesses adapted to digital platforms marking a new era of cashless transactions. This paper aims to examine the transition to a digital payment system in India post-COVID-19, analyze changes in consumer behavior and preferences towards cashless payment methods, and assess the future potential of cashless transactions in the country. This research is based on primary and secondary data using a structured questionnaire to gather insights from 308 respondents in metropolitan cities. A mixed-methods approach ensures a comprehensive understanding of the factors driving this transition. By analyzing data from the National Payments Corporation of India (NPCI), which reports a surge in number of banks live on UPI from 21 in April 2016 to 622 by September 2024, this research explores how platforms like UPI, mobile wallets, and contactless payments have redefined financial accessibility and consumer preferences. The result indicates that this shift has not only changed every day financial transactions but also increased financial inclusion in rural and semi-urban areas. This study offers valuable insights into the evolving digital payment landscape in India and proposes strategic recommendations for ensuring a secure and inclusive cashless economy.

Keywords:- *Cashless Economy; Digital Transactions; Technological Advancements; Customer Preferences; Government Policies and Regulation.*

I. INTRODUCTION

The COVID-19 pandemic has drastically changed the Indian Economy and the way people live, leading to a big move toward digital transformation. One of the most significant shifts has been in the way consumers have shifted towards cashless payment. With concerns over physical contact and social distancing, cashless payment methods become more popular. Mobile Banking, Digital payment, and contactless payment have made it much more convenient and reduced health risk as well which became an essential part of our daily life during the pandemic.

- **Health and Safety-** Cashless Payment have lessened the need to handle cash physically which was especially important during the pandemic due to fears of spreading viruses through touch. The Adoption of contactless payment methods has made it easy for both consumers and businesses to carry out transactions with minimal physical transactions, offering safer options.
- **Convenience-** Cashless Payment enables faster transactions whether through mobile apps contactless cards or online platforms. In today's fast-paced world, minimizing transaction time not only improves customer satisfaction but also increases the number of transactions businesses can handle, ultimately boosting their productivity and revenue potential.

The rapid shift toward cashless payments during the pandemic has raised an important question: Is the behavior change a temporary response to the health crisis, or is it a permanent transformation in consumer habits? As businesses and consumers have quickly adapted to these new payment methods, there is a need to examine the long-term impact of this trend. Understanding whether the shift towards cashless payments is here to stay is crucial for shaping future business strategies and financial policies. The increased adoption of cashless payments can also have broader implications for financial inclusion in India. For millions of people in rural areas or those without access to traditional banking services, mobile payments, and digital wallets could provide a gateway to participate in the formal economy. This could help bridge the gap between the unbanked population and financial services, fostering economic growth and reducing inequality.

This paper aims to explore the key factors that have driven the increased adoption of cashless payments in India during and after the pandemic. It will examine whether the shift in behavior is likely to continue in the post-pandemic world. By analyzing consumer preferences, behavioral changes, and the role of technology, the research will provide insights into the permanence of this transformation. Specifically, the research will seek to answer the following questions: What are the key drivers behind the shift towards cashless payments? How has the pandemic accelerated this transition in consumer behavior? And finally, will this shift remain in place as health concerns decrease, or will consumers revert to cash-based transactions once the immediate threat of the virus subsides? To answer these questions, the study will delve into various factors

influencing consumer decisions, such as ease of use, safety, and accessibility of digital payment platforms. It will also explore the role of businesses in promoting cashless payments and how government policies, such as demonetization and digital payment incentives, have contributed to this trend.

II. THEORETICAL FRAMEWORK

This literature review delves into the transformative effects of the COVID-19 pandemic on financial practices, particularly the transition to a cashless society. As lockdowns and social distancing redefined daily interactions, reliance on digital transactions surged. By exploring relevant research, this section highlights how the pandemic accelerated the shift away from cash and uncovers the broader societal and economic implications of this rapid change.

Like the global economy, the Indian economy endured significant setbacks throughout the financial year 2020-21 due to the unprecedented COVID-19 crisis. Yet, its ability to adapt, backed by robust fundamentals, allowed it to withstand the challenges. This period notably saw a rapid expansion in the use of digital payment platforms [1]. The digital payment sector experienced a 30% decline following the start of the lockdown, mainly due to the slowdown in industries such as travel, hospitality, and retail. In response, the government, regulators, and financial institutions encouraged the use of digital payment options like NEFT, IMPS, UPI, and BHIM to reduce reliance on physical cash, which posed a higher risk of COVID-19 transmission through hand-to-hand contact [2]. The outbreak led to a shift in consumer habits, with more reliance on eCommerce and mobile payments due to health concerns and convenience. While global economies faced disruptions, digital transactions became essential for contactless interactions. The growing number of smartphone users is expected to further drive the expansion of digital payment systems, offering improved customer experiences through platforms like digital wallets. As a result, digital payments are now an integral part of the future financial ecosystem [3]. The COVID-19 pandemic has altered consumer behavior, particularly in the way they make purchases and payments. According to a 2018 KPMG report, Indian consumers have access to around 45 mobile wallets and 50 UPI-based platforms. Out of the 1.2 billion mobile phone users in India, about 450 million have mobile internet. A key factor driving the growth of digital payments is UPI's ability to function even on basic feature phones, broadening its reach beyond just smartphone users and promoting wider adoption across different demographics [4]. For high-value transactions, cash has become almost obsolete, with its use mostly limited to households and smaller retailers for low-value purchases. Many merchants avoid electronic payments due to the associated transaction fees. Banks have responded by reducing their physical branches and encouraging digital payments. The pandemic accelerated this shift, as cashless payments help minimize the risk of infection. Mastercard data indicates that contactless payments increased by nearly 45% since the pandemic

began. Likewise, a Deloitte survey of 1,500 Swiss citizens revealed a significant rise in digital transactions during the pandemic Egerth, 2022 [5]. In India, the extensive use of mobile phones has positioned mobile services as a key solution for the banking sector. Mobile banking has seen substantial growth, driven by its convenience, offering users the ability to conduct transactions at any time and from any location. Various studies emphasize that banks must focus on innovation and adaptability to enhance mobile banking, ensuring that customers have seamless access to their finances, allowing for instant transactions and greater control over their accounts [6]. According to the World Payment Report of 2022, it is projected that by 2026, around 28% of the total volume of noncash transactions will consist of new payment methods, while traditional methods are expected to account for approximately 72% of overall noncash transactions. This highlights the growing significance of digital payment systems in the global shift towards a cashless society. For developing countries, the implementation of an efficient payment system could have substantial positive effects on their economic sustainability and growth [7]. Cash-based transactions have been declining in popularity due to the high costs of maintaining cash infrastructure and the risks associated with handling cash. The onset of the fourth industrial revolution was expected to drive a rapid transition to a more flexible, secure, and open cashless system. However, various obstacles—including regulatory challenges, outdated protocols, and resistance to change—have slowed the adoption rate, making the transition more gradual than anticipated [8]. Cashless transactions, which involve making payments without the use of physical currency, have grown in importance due to their convenience and efficiency. The shift toward digital payments, whether through cheques, demand drafts, online transfers like RTGS or NEFT, credit and debit cards, or mobile wallets like UPI apps, is reshaping the way financial transactions are handled. The benefits of cashless systems, including the ability to avoid carrying large sums of money and the reduction of time spent in long queues for withdrawals, make them a safer and more practical choice for consumers. These developments underscore the growing role of digital payment solutions in modern financial ecosystems [9]. The process of adapting to and overcoming the challenges of forming a cashless society varies significantly between regions. Cashless payment adoption is more prevalent in developed countries compared to developing nations. However, it is important to note that technological advancement is not the primary barrier to cashless adoption in developing countries. While the technology continues to improve, the main obstacle lies in consumer behavior and the reluctance of users to fully embrace these digital systems [10]. The Reserve Bank of India's Payment and Settlement Systems Vision 2019-21 sets out to deepen digital payment platforms by ensuring that e-payment options are safe, secure, convenient, quick, and affordable. This vision is built on four key pillars: encouraging healthy competition in the payments space, ensuring affordable costs through initiatives such as the Payments Infrastructure Development Fund, promoting customer-centric systems that boost user confidence, and

enhancing convenience to make digital payments more accessible to the general population [11]. With the increasing use of digital platforms, people have grown to feel both secure and digitally independent in completing tasks. The education sector saw a shift, where online teaching tools allowed students and teachers to stay connected remotely. Similarly, various platforms provided fast and secure responses to healthcare needs. E-commerce platforms became indispensable, especially for delivering essential items such as groceries, masks, sanitizers, and other necessary commodities, as they adapted to meet the demands of consumers during the pandemic. These advancements underscore the crucial role digital platforms played during the global crisis, driving the shift towards a more connected, cashless world [12]. The overall sales of e-commerce increased significantly due to the pandemic, as people preferred to stay at home, practice social distancing, and rely on online platforms for their purchases. Walmart's grocery e-commerce, for instance, saw a 74% surge in sales. Media usage also spiked during this period, prompting companies like Facebook and Google to update their features. Facebook introduced a Messenger feature allowing up to 44 people to connect simultaneously, competing directly with platforms like Zoom, while Google also released updated versions of its services to support more robust communication and connectivity [13]. As e-commerce surged during the pandemic and platforms like Facebook and Google adapted to meet increased demand for connection, social media also emerged as a critical tool

for coping with isolation and social distancing. These platforms not only helped deliver essential goods but also facilitated communication, enabling healthcare professionals and researchers to share critical information swiftly. However, this increased reliance on social media also fueled the spread of misinformation, underscoring both the advantages and risks of digital platforms during the pandemic [14].

In Conclusion, the shift towards digital payments, accelerated by the COVID-19 pandemic has significantly impacted various sectors from Banking, E-commerce to social media and healthcare. The increased adoption of mobile banking, cashless transactions, and digital payment solutions highlights the growing importance of technology in everyday life. However, while technological advancements continue to evolve, the path toward widespread adoption of digital payments is not without challenges. Despite the hurdles, it is evident that the shift towards a cashless and digitally-driven economy is inevitable and will continue to shape the future. As more people and institutions embrace these changes, the long-term benefits of a cashless society, including efficiency, transparency, and reduced transaction costs, will become increasingly evident. The role of digital platforms, in conjunction with policy support, will be crucial in ensuring a smoother transition and overcoming the challenges that lie ahead.

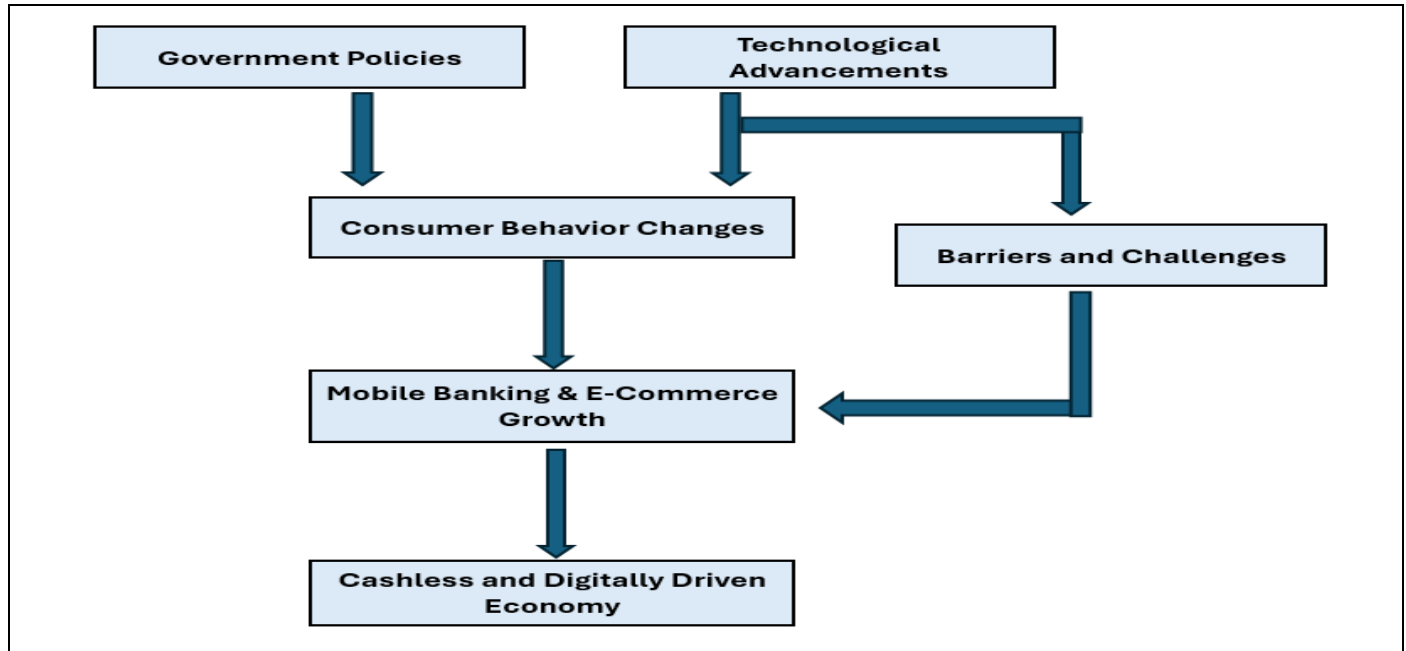


Fig 1: Conceptual Framework of the Research Paper

Source: Compiled by Author

➤ Objectives

- To analyze the Transition of the Digital payment system in India post-COVID-19 pandemic.
- To understand the changes in consumer behavior and preferences towards cashless payment methods during and after the COVID-19 pandemic.
- To study the potential future of cashless transactions in India.

III. METHODOLOGY

This research is based on Primary and Secondary data to examine the shift in consumer behavior towards cashless payment after the COVID-19 pandemic. Primary Data was collected through a structured question error of 308 respondents from metropolitan cities, which gathered information on their payment preferences and frequency of digital transactions. A pilot study of 32 samples was conducted to check the data validity and reliability of the data. The survey data were statistically analyzed using SPSS and the interview transcripts were processed for identification of themes. The results were also supported by the review of secondary data from existing published papers and government reports and industry. We combine quantitative and qualitative methods to offer a holistic view of how consumers behave as well as the macro forces that are propelling cashless penetration.

IV. RESULTS & DISCUSSION

This part highlights the main takeaways from quantitative and qualitative analysis results about consumer behavior changes toward digital payments post-COVID-19. For analysis, the responses have been grouped under principal themes identified during data collection for changes in payment preferences; frequency of digital transactions, and safety, convenience, and access.

The transition towards a cashless economy has profound implications for the future of financial transactions in India. The rapid adoption of digital payments, particularly through UPI, has expanded consumer demographics, reaching individuals in rural and semi-urban areas due to improved internet access and smartphone penetration. According to the National Corporation of India (NPCI), the number of banks living on UPI soared from just 21 in April 2016 to an impressive 622 by September 2024. This dramatic increase in UPI-enabled

banks underscores the growing acceptance of digital payments among customers as well as the proactive efforts by financial institutions to enhance the availability and reliability of cashless transaction options. The convenience of UPI and other digital payment methods not only facilitated a seamless transaction experience but also reshaped consumer behavior, with a notable rise in the use of mobile wallets and contactless payments for daily purchases. The Indian government and the Reserve Bank of India (RBI) played a crucial role in promoting digital payments during the pandemic through initiatives like PM Jan Dhan Yojana and Direct Benefit Transfers (DBT) to facilitate access to digital banking services. The government also incentivized businesses and consumers to adopt digital payments by offering cashback schemes, subsidies for setting up payment infrastructures, and GST benefits for digital transactions. This support was critical in accelerating the transition to a cashless economy.

Since the outbreak of COVID-19, living habits, purchasing patterns, and a switch to digital payment systems in India have undergone a dramatic shift. The convenience, security, and regulatory environment for digital payments have completely overturned consumer behavior. Digital has become ordinary across the country. India's payment eco-system now includes the Unified Payments Interface (UPI), mobile banking, electronic wallets, and contactless payments. Internet-based payment is bound to become India. Major transformation in finance will lead the country towards cashless economies, and more innovation within fintech and digital payment methods in the future.

The following tables outline essential demographic characteristics, pre and post-pandemic cash usage motivations behind this transition, and evolving perceptions of cashless methods. These findings offer a detailed view of how and why consumer behavior adapted in favor of digital transactions.

Table 1: Demographic Profile of the Respondents

Characteristics	No. of respondents	Percentage
Gender		
Male	156	50.6
female	152	49.4
Age group		
Under 18	12	3.9
18 - 30	176	57.1
31 - 45	108	35.1
46 - 60	12	3.9
Education level		
High school	20	6.5
College	116	37.7
Graduate	100	32.5
Postgraduate	72	23.4
Occupation		
Students	164	53.2
Business owners	104	33.8
Corporate workers	24	7.8
Government employee	4	1.3

Educator/Academic	4	1.3
Retired	8	2.6

Source: Primary Data

Table 1 shows the demographic profile of 308 respondents, with 50.6% being male and 49.4% being Female. The majority of respondents are between the ages of 18 to 30 years (57.1%), followed by the respondents in the age range of 30 to 45 years (35.1%), under 18 (3.91%), and 45 to 60 years (3.89%). This study is dominated by respondents with a college/university education level (37.7%). The remaining respondents were at the graduate level (32.5%), postgraduate level (23.4%), and high school (6.5%). There is a total of 53.2% Student respondents, 33.8% Business owner/entrepreneur respondents, 7.8% corporate/office worker respondents, 2.6 % retired respondents, 1.31% educator/academic respondents, and 1.29% government employee respondents.

Table 2: Frequency of cash usage among customers before the Covid-19

Response	No. Of Respondents	Percentage
Always	116	37.7
Frequently	80	26
Occasionally	60	19.5
Rarely	44	14.3
Never	8	2.6

Source: Primary Data

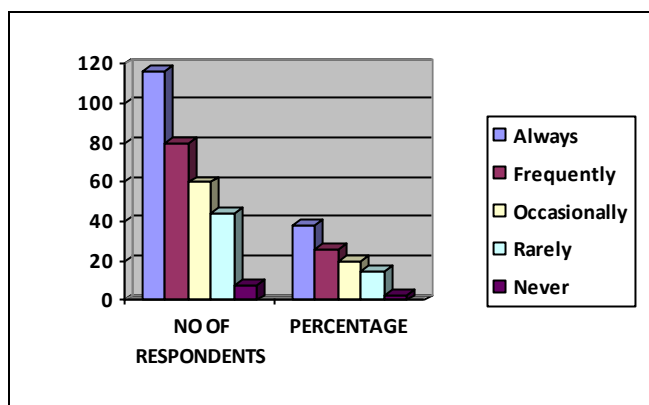


Fig 2: Frequency of Cash Usage among Customers before the Covid-19

Table 2 shows that before the pandemic, cash was a common method of transaction for many respondents, with the majority using it either always (37.7%) or frequently (26%). A significant portion used it occasionally, (19.5%) and rarely (14.3%) while a small minority never (2.6%) used cash.

Table 3: Increased Cashless Payments during Covid-19

Response	No. Of Respondents	Percentage
Significantly more positive	156	50.6
Somewhat more positive	120	39
No change	20	6.5

Somewhat more negative	8	2.6
Significantly more negative	4	1.3

Source: Primary Data

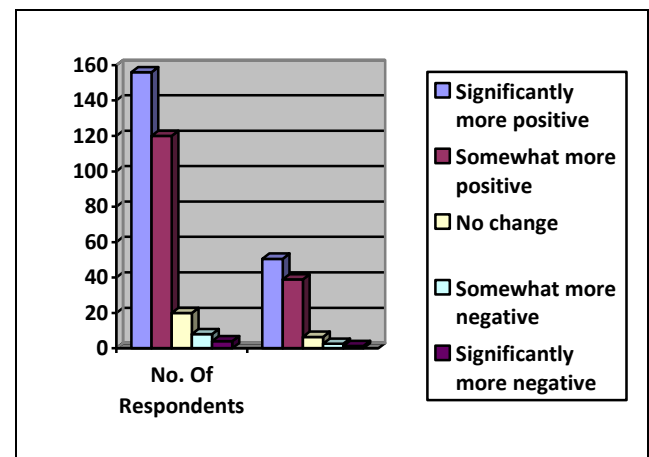


Fig 3: Increased Cashless Payments during Covid-19

Table 3 shows that the pandemic led to a substantial shift towards cashless payments. The majority of respondents either significantly (50.6%) or somewhat (39%) increased their use of cashless methods. A small fraction saw no change (6.5%) or decrease (2.6%) in their use of cashless payments and some were still using cash (1.3%).

Table 4: Reasons for the Shift to Cashless Payments

Response	No. of Respondents	Percentage
Health and safety concerns	64	20.8
Convenience	216	70.1
Encouragement from businesses	12	3.9
Recommendation	16	5.2
Peer influence	0	0

Source: Primary Data

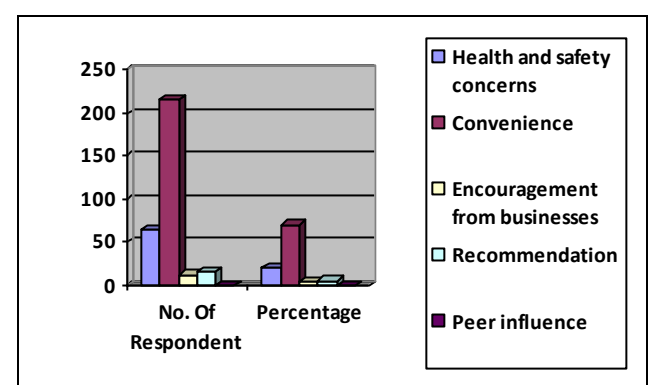


Fig 4: Reasons for the Shift to Cashless Payments

Table 4 shows that the predominant reason for the shift to cashless payments was convenience (70.1%), followed by health and safety concerns (20.8%). Recommendations (5.2%) and business encouragement (3.9%) played a minor role, and peer influence was not a factor at all.

Table 5: Perception Shift in Cashless Payments Post-Pandemic

Response	No. Of Respondents	Percentage
Significantly more positive	120	39
Somewhat more positive	168	54.5
No change	16	5.2
Somewhat more negative	4	1.3
Significantly more negative	0	0

Source: Primary Data

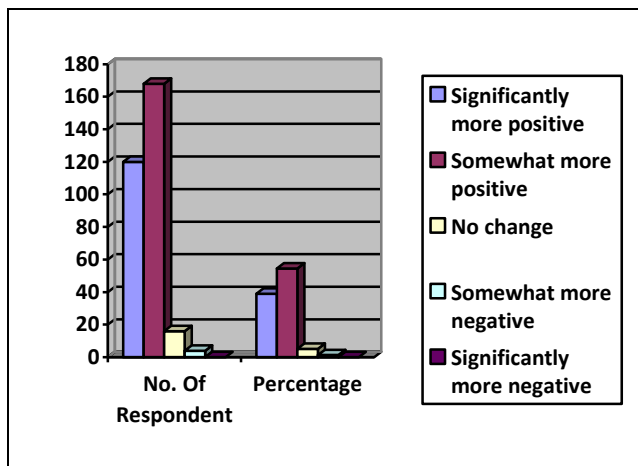


Fig 5: Perception Shift in Cashless Payments Post-Pandemic

Table 5 shows that the overall perception of cashless payments improved for most respondents. A large majority

found their perception either significantly (39%) or somewhat (54.5%) more positive while there was some no change (5.2%) in people's perception and there were very fewer negative respondents (1.3%) after the pandemic, indicating a favorable shift towards cashless transactions.

Table 6: Frequency of Cash used Post-Pandemic

Response	No. Of Respondents	Percentage
Always	32	10.3
Frequently	54	17.5
Occasionally	128	41.5
Rarely	89	28.8
Never	5	1.9

Source: Primary Data

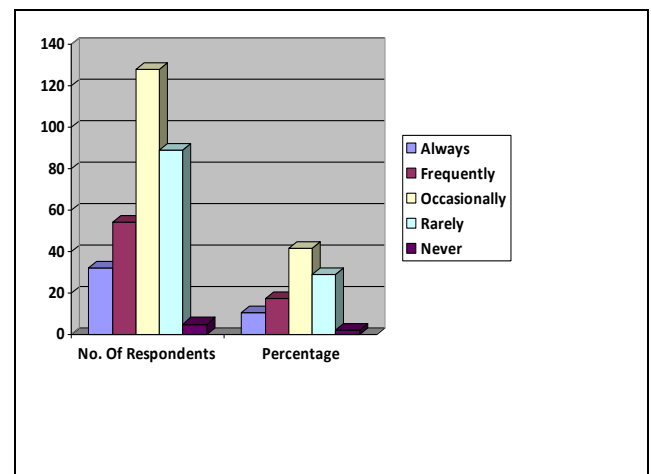


Fig 6: Frequency of Cash Used Post-Pandemic

Table 6 shows that post-pandemic, the frequency of cash usage saw a significant shift, with only 10.3% of respondents using cash "Always," down from pre-pandemic levels. The majority now use cash "Occasionally" (41.5%) "Rarely" (28.8%), or "Frequently" (17.5%) indicating a move away from consistent cash usage. Those who "Never" use cash remain a small portion at 1.9%.

Table 7: Comparative chart between Table 3 and Table 5

Category	Increased Cashless Payments During Pandemic	Perception Shift in Cashless Payments Post-Pandemic
Significantly more positive	50.6% (156 respondents)	39% (120 respondents)
Somewhat more positive	39% (120 respondents)	54.5% (168 respondents)
No change	6.5% (20 respondents)	5.2% (16 respondents)
Somewhat more negative	2.6% (8 respondents)	1.3% (4 respondents)
Significantly more negative	1.3% (4 respondents)	0% (0 respondents)

Source: Primary Data

- During the Pandemic: A significant majority (90.2%) of respondents (50.6% significantly more positive and 39% somewhat more positive) reported an increase in positive perceptions toward cashless payments. A small portion (6.5%) of respondents indicated no change in their perception of cashless payments. A minimal percentage of respondents (3.9%) reported a negative shift (2.6% somewhat more negative and 1.3% significantly more negative).

- Post-Pandemic: The positive perception slightly declined but remained high, with 93.5% of respondents (39% significantly more positive and 54.5% somewhat more positive) expressing continued positivity. This number decreased slightly, with 5.2% of respondents reporting no change. The negative perception further declined, with only 1.3% of respondents feeling somewhat more negatively, and no respondents reporting a significantly more negative perception.

Table 8: The Comparative Chart Between Cash used before and after Covid-19

Category	Frequency of Cash Used Pre-Pandemic	Frequency of Cash Used Post-Pandemic
Always	37.7%	10.3%
Frequently	26%	17.5%
Occasionally	19.5%	41.5%
Rarely	14.3%	28.8%
Never	2.6%	1.9%

Source: Primary Data

The comparative chart between pre-pandemic and post-pandemic cash usage shows a clear decline in frequent cash use. The percentage of respondents who "Always" used cash dropped sharply from 37.7% to 10.3%, and those who used it "Frequently" decreased from 26% to 17.5%. On the other hand, "Occasionally" and "Rarely" used cash saw notable increases, with "Occasionally" rising from 19.5% to 41.5% and "Rarely" from 14.3% to 28.8%. The percentage of respondents who "Never" used cash remained low, with a slight decrease from 2.6% to 1.9%. This shift suggests a significant move away from cash towards other payment methods post-pandemic.

V. CONCLUSION

This research highlights the transition towards cashless payment in India post-COVID-19, analyzing consumer behavior changes and the factors driving digital payment adoption. Key findings reveal that convenience and safety were the predominant reasons for the shift to digital payments, with a notable rise in cashless adoption among younger demographics and urban areas. The shift towards digital transactions suggests growing consumer trust in cashless systems, underscoring the need for continued improvements in digital infrastructure and cyber security. While this study provides insights into urban adoption patterns, further research is needed to understand rural adoption and barriers to cashless payments. Future research should address these gaps, particularly focusing on rural adoption patterns and strategies for enhancing digital engagement among diverse population segments.

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