



REIMAGINING CASHLESS TRANSACTIONS: BEFORE, DURING AND AFTER THE PANDEMIC

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ABSTRACT: Several studies have reported a changeover to cashless transactions over the pandemic period and the changes continue to move. There is no stable ground as of now for the usage and future of cashless transactions in India. Here we report the changes that have taken place in the medium of payment for various age groups, people of different educational qualifications etc. The universe for our study was the entire population of India and the population was an odd eighty people that we surveyed. Individuals ranging from 18 years to 65 years were eligible for participation in this survey and divided into school going, diploma/degree holders, postgraduates and other professionals for the analysis of the primary data collected.

According to the analysis and interpretation, the usage has increased over the pandemic time and majority of people are ready to shift to cashless mode of payment completely after the pandemic is over, thus indicating a shift and a possible stable ground shortly.

The COVID-19 crisis has not only made the shift to cashless transactions an easier option but also a safer option in terms of health. The gradual move towards digital payments is likely to be stepped up. The amount of government support and encouragement will also give a boost to the shift towards cashless transactions in the country.

Keywords: Cashless Transactions, COVID-19, Lockdown, Digital Payments etc.

1. INTRODUCTION

The ongoing spread of COVID-19 has become one of the biggest threats to the global economy and financial markets. A nationwide lockdown; shutting down public places and transport, and urging the public to stay indoors, maintain social distance, and work from home are some of the measures taken to suppress the spread of coronavirus.

The resulting economic hampering is immense and the decline in activity for businesses, both large and small is substantial. With economic growth severely hit, the financial prosperity of the digital payments sector is no different and will follow a similar course, at least in the short term, but the industry's stability and potential for innovation will play an invaluable role in stirring the economy into the new normal.

Even in the Pre-Pandemic period, digital payments in India began to grow. Just between 2018 and 2019, India saw a tremendous growth of 383% in digital payments. The emergence of the younger population who have grown up with mobile phones and the internet has commissioned faster adoption of innovations and improvements in digital payments.

During the Lockdown period, Digital payment volume declines are seen in airlines, tourism, hospitality, hotels, entertainment, e-commerce (non-essentials) and restaurants, among other sectors. Further, cross-border payments, be they B2B or C2B, have declined, owing to the temporary shutting down of borders further. However, there are also a few areas that are seeing a boost in digital payments by way of increased adoption during the lockdown. These include online grocery stores, online pharmacies, OTT players (telecom and media), EdTech, online gaming, recharges and utility/bill payments.

Easing of the national lockdown saw an expansion in digital transactions to ₹2.18-lakh crore in May'2020, primarily due to the fear of contracting Covid-19 through cash transactions. Apart from convenience, digital payments offer the promise of greater transparency and reduced dependency on middle-men and banking monopolies.

Digital payments, once a convenience, have become a necessity in these times. With a majority of the sectors that contribute to digital payments, it is still in a state of instability.

2. NEED OF THE STUDY

India is a country where 98 percent of entire economic transactions are done through cash. One of the reasons for the increased poverty rate is the circulation of black money in the country. Through cashless transactions, it can be controlled to some extent. The government has initiated a cashless transaction in recent years. Government is motivating the society towards cashless transactions through various means like removing duties on devices like point of sales machines, fingerprint readers, education institutions are insisting on collecting fees through digital mode, no charges on cashless transactions till rupees 2000. With the help of this study, we hope to understand the spending pattern through cashless transactions and if India is ready to move to digital mode of cashless transactions completely in the near future.

3. REVIEW OF RELEVANT LITERATURE

Hock-Han Tee and Hway-Boon Ong (2016), Cashless Payment and Economic Growth examined the effect of adopting cashless payment in five European Union (EU) countries, namely, Austria, Belgium, France, Germany, and Portugal, for the period of 2000-2012. The adoption of one type of cashless payment will affect another type of cashless payment in the short run. The impact of adopting cashless payment on economic growth can only be significantly observed in the long run. Hence, any policy that promotes cashless payment will not affect the economy immediately.

Dr. Hitesh Kapoor (2016), Consumer satisfaction and E-Banking have attempted to identify the factors that contribute to consumer satisfaction with internet banking. The banking sector is one of the first sectors to make a global presence. With the change in technologies adopted by banks, strategies used by the banks are also changing. Dimensions of service quality like tangibility, reliability, responsiveness, assurance and empathy have shown more or less a great impact on customer satisfaction with internet banking services.

Mandeep Kaur And Kamaldeep Kaur (2008), *Development of Plastic Cards Market*; past, present and future scenario in Indian banks found that plastic money in the form of cards has been actively introduced by banks in India in the 1990s. But it was not very popular among Indian consumers at the time of its introduction. The change in demographic features of consumers in terms of their income, marital status, education level, etc. and up gradation of technology and its awareness brought the relevant changes in consumer preference.

Raja, Velmurgan and Seetharaman (2008), discussed in the paper E-payments: Problems and Prospects on the evolution and the growth of electronic technologies, which can provide more advanced technical support for electronic payment systems. The focus of this paper is to identify and explain the different methods of e-payment. The authors analysed the challenges of electronic payments from different perspectives and provided preliminary security countermeasures for each of the issues.

Worthington (1995), described in the cashless society paper where clumsy-to-handle points and notes are replaced by efficient electronic payments initiated by various types of plastic cards is a boom for the 21st century. Some of the interested parties stand to gain more than others if the cashless society becomes a reality. The paper outlines the rationale of those who are keen to promote the cashless society and the implications for marketers charged with winning consumer acceptance for payment by plastic card. The plastic card payment product is analysed under the three headings of pay later, pay now and pay before and a view is offered as to the prospects for each type of plastic card in contributing to the development of the cashless society.

4. STATEMENT OF THE PROBLEM

Various research studies have taken place since the pandemic has begun regarding the impact on cashless transactions and its future in the country. This project aims to better understand the changes those cashless transactions and the mode of payment has gone through in the pandemic period.

5. OBJECTIVE OF THE STUDY

1. To study the effect(s) of cashless transactions since the pandemic.
2. To compare the behaviour before lockdown and during the pandemic regarding cashless transactions.
3. To investigate the future of digital payments/ cashless transactions post the pandemic.

6. HYPOTHESIS

| Research Question | Alternative Hypothesis (H ₁) | Null Hypothesis (H ₀) |
|---|--|--|
| Has the use of cashless transactions changed during the pandemic? | The usage of cashless transactions has increased since the pandemic. | Use of cashless transactions has decreased or remained the same as there is no relation between the pandemic and the use of cashless transactions . |
| After the pandemic, are people ready to shift to cashless mode of payment completely? | Since the pandemic people often prefer to use the cashless mode of payment i.e net banking, UPI, debit and credit cards etc. | People are not ready to change their transaction method regardless of the pandemic. |

7. WORKING DEFINITIONS OF THE TERMS USED

- Cashless Transactions:** All transactions varying from debit cards, credit cards, Unified Payment Interface (UPI), Online direct bank transfers are included in the definition used in the research.
- OTT Players:** The term stands for “over the top” players, referring to various companies providing television and film content over the internet.
- Lockdown:** state of restricted access to social places and isolation as a security measure.

8. UNIVERSE, SAMPLE AND SAMPLING

- Universe:** The Universe for the present research study has people belonging to Age group of 18-60 years using cashless mode of payment from the Pune city.
- Sample and Sampling Method:** The researcher has used a convenience sampling method for the selection of respondents for the collection of data through questionnaire. There was a total of 79 respondents.

9. SCOPE OF THE STUDY

The research study conducted is performed for the purpose of understanding people's conception of cashless transactions and how it has changed during the pandemic. The lockdown that was imposed by the government is the point of reference. Information collected through primary sources was before pandemic and during the pandemic. Though we have come out of the lockdown, the pandemic is still prevailing. That's why the study takes consideration of 'before pandemic' and 'during the pandemic' as the time frame.

Most of the people who have filled up the questionnaire are demographically from Pune itself and there are around 5 people who are not from Pune. So the scope of the study is only limited to Pune and does not apply to the whole of Maharashtra or India.

Cashless transactions include all kinds of payments except cash. So demand drafts and cheques are not the focus of our study. The study is more towards digital cashless transactions such as UPI, credit/ debit card, PoS machines etc. As these digital transactional facilities such as PoS machines and the use of credit/ debit cards are still not very popular in small cities or rural areas. So the scope of the study is limited to the urban population only.

10. DATA COLLECTION

Data collected for research has been divided into two categories:

A. PRIMARY DATA:

Primary data has been collected in the form of a questionnaire from 80 people, of age groups ranging from 18 years to 60 years. The questionnaire has covered areas concerning situations before the pandemic, during the pandemic and their expected behaviour after the pandemic.

The data collected has been of quantitative as well as qualitative nature. The rationale behind using a questionnaire format is to understand the behaviour of common people of all age groups to test our hypothesis.

B. SECONDARY DATA:

Secondary data has been collected from various published sources:

- **News Articles:** Publications during the pandemic that were released have been a source of information about increasing trends, user preferences.
- **Industry Reports:** The supporting industries to cashless transactions also have been providing information through their annual reports, magazines etc.
- **Company Publications:** Companies providing cashless transactions like GPay have released several reports on consumer preferences, growing trends and many new players in the market like WhatsApp who have launched online transactions on their platform have also released statements citing their reasons to do so.
- **Government Publications:** The Reserve Bank Of India has published multiple reports regarding their push towards Digital Payments and a cashless economy, giving insight into government support which would shape the future of cashless transactions.

11. DATA ANALYSIS AND INTERPRETATION

The survey conducted by the research team consisted of various questions about the individuals and their knowledge and usage of cashless transactions. This survey helped us to understand the spending pattern and the areas where cashless transactions could be used in future. The **average age of the whole population was calculated to be 26.5 years**. And the **Mode of the population is 20 years**. It is necessary to state this info as it helps us to understand that use of cashless modes of transactions such as UPI and e-wallets are more popular amongst the youth. It also matches with the minimalism theme which youngsters like to follow these days as they don't have to carry their wallets at all times and they have a record of their spending and income.

Through the primary data collected, we also found out that out of the total sample there were **78.5% of units who use UPI as their mode of transactions**. The main advantage of UPI is the liquidity that it provides. With UPI in use, individuals and companies need not worry about the safety and security of the transaction as it is government-backed. UPI transfers, if provided with good internet speed, can transfer money in seconds. Vendors need not worry about the change that they need to give back to the customers as the amounts accurate up to basis points can be transferred. All in all, it has done wonders for not only the youth but also the middle-aged and old age group.

Though UPI and digital transactions are popular, people still face a lot of issues when using cashless modes. Through the survey, it was quite evident that the main hindrance for India going cashless is the unavailability of the constant decent speed of internet in rural as well as urban areas. Another problem that users of cashless transactions face is the risk of identity theft. In the survey, **41.6 % of the total population recognised identity theft as a genuine risk**. Identity thieves who have access to your personal information may open up new loans, rack up debt in your name and leave those debts unpaid. Regular monitoring of your credit reports is one way to help detect suspicious activity that may indicate fraud or identity theft. Another problem that people identified was the **lack of digital infrastructure and literacy in India**. India is still a developing country and the availability of the internet and PoS machines in shops is still a major issue. Though many companies like MasterCard and Visa are taking initiatives to set up PoS machines with good internet facilities, India is still pretty far from resolving these issues completely.

Through the survey, we understood the spending areas of people and how these patterns have changed after the pandemic started. **Up to 87% of the people used cashless modes of transactions on online purchases before the pandemic**. This number then was just limited to online purchase of essentials after the lockdown was imposed.

The secondary data revealed that how in certain sectors the use of cashless mode of transaction has changed. The sectors where we have seen an increase in the use of cashless mode are the retail sector, telecom, insurance, education technology, e-commerce essentials, healthcare and pharma, payment to the government. Most of these expenditures made by the consumers were for essential goods and services. Telecom and DTH companies will also see a huge gain in payments as people will require better mobile networks as a lot of them are applying the work from home model. The lockdown and shutdown of schools and educational institutions have proved to be a boon for EdTech companies such as Byju's, Upgrad, Unacademy with an increase in demand for their services enabled by online payments. The sectors where use of cashless mode of transaction has reduced is travel tourism and hospitality, electronics and consumer durables and aviation. The reason for this reduction can be blamed on the pandemic because these sectors had wholly or partially ceased their operations. Now that the markets are again opening and the economy is reviving, these sectors are expected to increase their operations which will further lead to increased cashless transactions.

Some information from the secondary data that we gathered shows how the government is encouraging people to shift to non-cash transactions. In the wake of the pandemic, the Reserve Bank of India (RBI) had earlier these 12 months requested clients

to exchange to virtual modes of banking and payment. RBI had stated that non-coins virtual price alternatives consisting of NEFT, IMPS, UPI and BBPS are available round the clock to facilitate fund transfers, purchase of goods / services, payment of bills, etc. The move was to restrict the management of the pandemic and avoid physical contact with each other. Global Investment financial institution Bernstein, earlier this year, stated that India’s cellular and credit score card payment is likely to develop at 63% and 25% Compound annual boom rate by March of 2025. This might translate into an 11 times boom for the UPI ecosystem. India recorded 1.3 billion UPI transactions in June of 2020, which stands testament to India’s hastily developing virtual bills space. As according to WordLine India, in the July-September quarter, the number of transactions via cellular wallets changed into 72.79 crore and the cost was Rs 39,105 crore,

In 2020 Paytm- a cellular wallet service provider and UPI service provider witnessed a 3.5X increase in transactions amid covid-19. They additionally realised that the common range of transactions per week had shot up. The pandemic additionally helped the organization to draw new clients to sign up for the platform.

Gpay, a leading UPI service provider in its august report specified that there were a total of 1.62 billion UPI transactions in August, worth ₹2.98 trillion, which is almost double as compared to the transactions worth in 2019 August i.e. ₹1.54 trillion.

12. TESTING OF HYPOTHESIS

A survey was conducted by the researcher. The testing of the hypotheses is done by taking a sample population and analysing their answers.

HYPOTHESIS - 1:

Alternative Hypothesis: “The usage of cashless transactions has *increased* since the pandemic.”

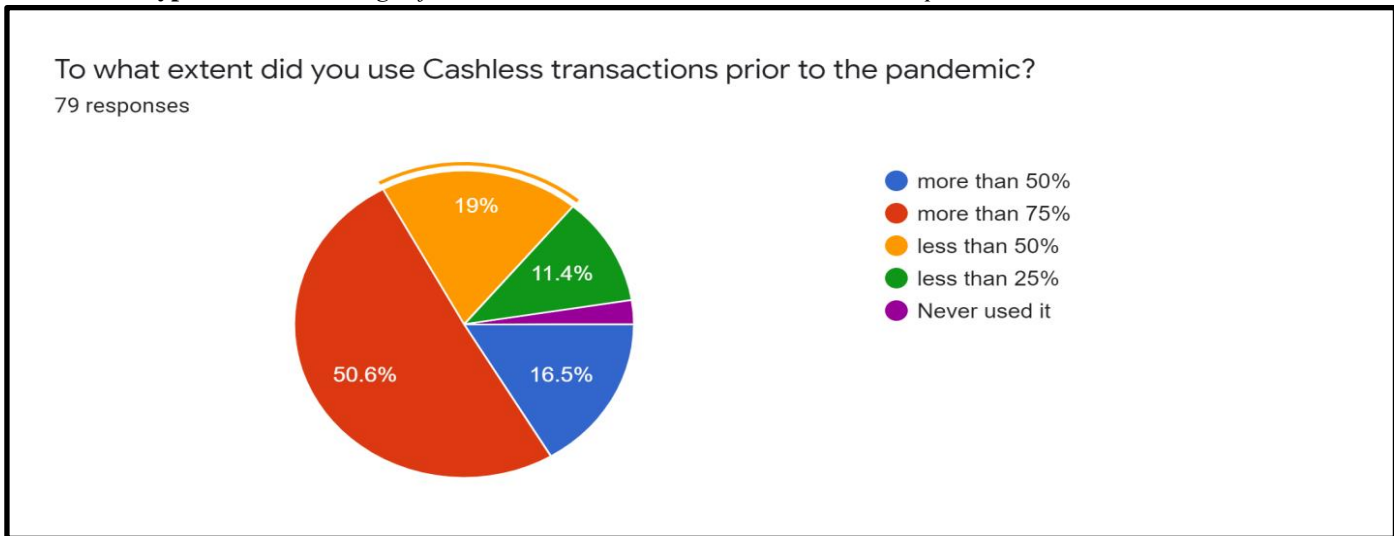


Figure 1: Extent to use Cashless Transactions Prior to the Pandemic

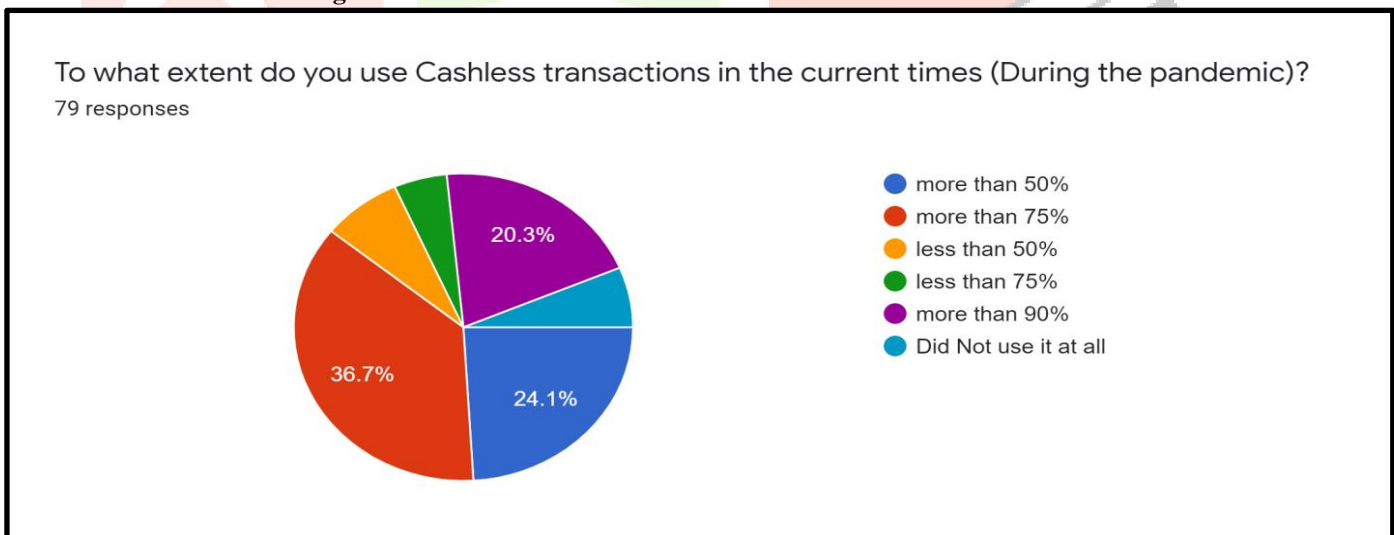


Figure 2 - Extent to use Cashless Transactions During the Pandemic

The above two figures and questions are an extract from the survey relevant to test this hypothesis. We can see that there were only 16.5% of the people who used 50% or more of their total transactions as cashless. In figure 2 we see this percentage increasing up to 24%. We can also see that there were 20.3% people who had 90 percent or more of their transactions through cashless mode.

Likewise, we see that there were 19% of people who made their transactions through cashless mode even less than 50 % of the time. This percentage decreased to 7.6 % during the pandemic. Reading the two charts, **we can see that the usage of the cashless mode of the transaction has increased.**

From the secondary data collected and interpreted we find out that the use of cashless transactions in those sectors, which were providing essential services and source of entertainment and communication, were also on a rise.

By reviewing the primary and secondary data of the research we can see that it is quite evident that the use of cashless mode of transaction has increased, thus holding the alternative hypothesis true.

Hypothesis - 2:

Alternative Hypothesis: "Since the pandemic people would prefer to use the cashless mode of payment i.e., net banking, UPI, debit and credit cards etc."

Researcher has used the 5-point scale method to test this hypothesis, where respondents were asked their opinion in the form of degree of agreement or disagreement for the statement- "People would prefer shifting to cashless transactions post Pandemic period".

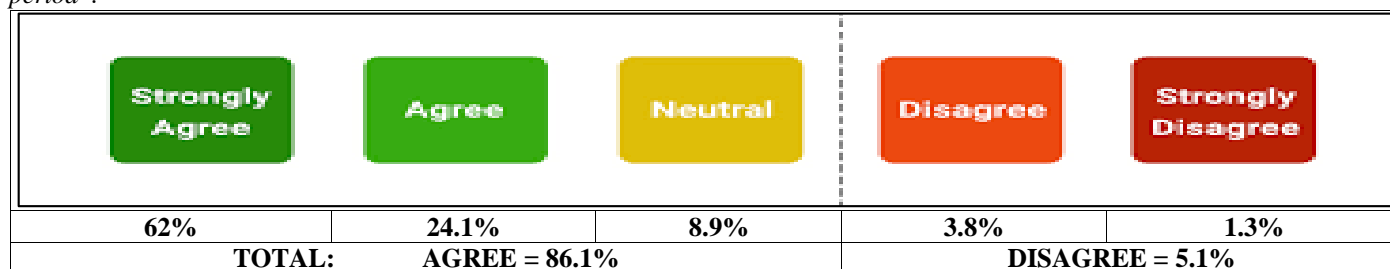


Figure 3 - Responses for People would prefer shifting to cashless transactions post Pandemic period

As it can be observed that the percent of people agreeing to the statement outweigh the percent disagreeing with it, the alternative hypothesis can be held true.'

13. LIMITATIONS

The limitations of the present research can be noted as:

A. Limited Sample Size:

The sample size is restricted to 80 individuals and hence, the sample size is relatively small in comparison to the solution that we are looking for and basing the study on a larger sample size could have generated more accurate results. Thus, most of our study is based on qualitative studies due to the importance of large sample size in a quantitative study.

B. Methods used to collect the data:

There also seems to be a deficiency in the manner data was collected initially. All required questions could not be answered by the respondents due to various reasons such as lack of awareness and inability to discuss in depth their opinions on the subject matter. These deficiencies were identified during the research findings as they restricted data analysis and interpretation.

C. Scope of discussions:

The scope and depth of the discussions in this research have been compromised on many levels due to our lack of experience in producing such research. In contrast to an experienced scholar, our research lacks the expertise that experience brings in.

14. FINDINGS

Table-1 Demographic profile of the respondents

| Demographic Factor | Options | Frequency | Percentage |
|---------------------------|----------------|-----------|------------|
| Age | 18-25 | 54 | 68 |
| | 25-35 | 7 | 9 |
| | 35-45 | 13 | 17 |
| | 45-60 | 5 | 6 |
| | Total | 79 | 100 |
| Gender | Male | 55 | 70 |
| | Female | 24 | 30 |
| | Other | 0 | 0 |
| | Total | 79 | 100 |
| Marital Status | Married | 21 | 26 |
| | Unmarried | 58 | 74 |
| | Total | 79 | 100 |
| Educational Qualification | School | 5 | 6 |
| | Degree/diploma | 42 | 53 |
| | Post graduate | 24 | 30 |
| | Professional | 6 | 8 |

| | | | |
|--|--------------|-----------|------------|
| | Other | 2 | 3 |
| | Total | 79 | 100 |

The above Table 1 shows that majority (68%) of the respondents belong to the age group of 18-25 years, Majority (70%) of respondents are male, a majority (61%) of respondents are unmarried, a majority (53%) of respondents have finished their degree/diploma.

Table- 2 Change in frequency of cashless transactions before, during and after the pandemic

| Questions | Options | Frequency | Percentage |
|---|-----------------------|------------|------------|
| To what extent did you use Cashless transactions before self-interest the pandemic? | More than 50% | 13 | 16 |
| | More than 75% | 40 | 51 |
| | Less than 50% | 15 | 19 |
| | Less than 25% | 9 | 11 |
| | Never used it | 2 | 3 |
| | Total | 79 | 100 |
| To what extent do you use Cashless transactions in the current times (During the pandemic)? | More than 50% | 19 | 24 |
| | More than 75% | 29 | 37 |
| | Less than 50% | 6 | 8 |
| | Less than 75% | 4 | 5 |
| | More than 90% | 16 | 20 |
| | Did not use it at all | 5 | 6 |
| Total | 79 | 100 | |
| Would you prefer shifting to cashless transactions completely in the future? | Yes | 45 | 57 |
| | No | 7 | 9 |
| | Maybe | 27 | 34 |
| | Total | 79 | 100 |

The above Table 2 shows that the majority (51%) of respondents used cashless transactions more than 75% of the time before the pandemic. A majority (37%) of respondents used cashless transactions more than 75% of the time during the pandemic. A majority (57%) of respondents would prefer shifting to cashless transactions completely in the future.

15. SUGGESTIONS

A. TO GOVERNMENT -

The government should take more initiative and make policies to promote the use of cashless transactions during the pandemic and the government agencies should create more awareness among the people about the need and utility of cashless transactions. Along with that, customers should also develop their self-interest to use cashless transactions to avoid contact during the pandemic.

B. TO COMPANIES -

- i. **Minimum journey to pay:** A strategic victory in the rising competitiveness of digital patterns in payments is a minimum journey from starting payments to finish payments. The customer needs to pay the way that the payment is done in minimal steps. You can pull out payment with the minimum phase if you have a digital payment solution such as the mobile payment app, peer to peer payment app.
- ii. **An incentive/Loyalty Programme:** We also found that the business offers discounts or free of charge for customers to use their goods or services in traditional payment procedures. The same strategy could be used to encourage payment systems without cash. It encourages them to use the service more frequently than normal whether you provide the customer with a reward or loyalty points.
- iii. **Educate consumers:** Since they fear loss or convenience, consumers prefer to marginalise themselves to new approaches or systems. This behaviour, if correlated with money, increases. The key concern of consumers when it comes to the digital payment process is whether or not their money is secure. Despite the upward trend in digital payment, there is still a segment of traditional customers who distrust digital payment solutions. Thus, future customers need to be trained in the digital payment system. Any digital wallet solution should notify its regular customers and new customers how safe and convenient digital transactions are compared to traditional payments. They need to be educated and encouraged to use a cashless payment system by different methods and means. Trust for digital payment solutions must be generated among customers in order to be transformed from traditional cash payment towards new digital payment trends.

iv. **Minimum redirect:** We noticed many occasions that you were routed to various sites to complete your digital payment. This could be a page for banks, gateways for payment, OTP, etc. This contributes to the checking of the user's patience to wait before payments are done. And this redirects the danger of payment failure as well as the safety hazard and the failure of payment scenarios increase on some sites. Therefore, it is advisable to make fewer redirects during the payment process for a digital payment solution.

C. TO CUSTOMER -

Customers should take the initiative to use cashless transactions in day-to-day activities to avoid any contact during the pandemic.

16. SCOPE FOR FURTHER RESEARCH

The primary purpose of this research was to be able to understand the impact of Covid 19 on cashless transactions. One of the major limitations due to lack of time and expertise faced during the research was insufficient sample size for statistical measurement which led to most of our study being qualitative rather than quantitative hence making the research more theoretical than statistical. It would be recommended that the sample size should be increased in order to get a deeper understanding of the data and obtain a wider perspective on the topic.

Another limitation faced during the research was the method used to collect the data. Due to the lack of awareness and inability to conduct various sampling methods, the research findings are restricted to data analysis and interpretation.

Deeper research can be conducted with different statistical tools and analysis methods with more knowledge, expertise and experience. Future research on this issue could be done by looking into bigger sample size and analysing the data for correlation.

Findings from this particular study have shown promising evidence that since the pandemic has started the use of cashless transactions has increased significantly.

17. CONCLUSION

The Covid-19 crisis challenged the presumption of cash as the supreme liquid asset, which led payers to judge their regard as the most available and convenient sacrosanct form of payment. Payers were seriously afraid of returning to cash until digital payment systems were approved. However, in the near future, cash is unlikely to vanish. The NWT cash withdrawals showed signs that the Indian population can deal in cash, and rebound to pre-Covid-19 levels. Therefore, Covid-19 could have provided a major boost to its attempt to exclude, but not to fully eliminate cash transactions. In various respects, however, Covid-19 was a silver coating to make digital payments acceptable in India. The impenetrability of the current payment system served as a major barrier to digital development.

The changes in any cultural, demographic, and institutional sense are too early to conclude, but we can be sure that Covid-19 has already reinforced current trends to increase the digitization of payments. The Reserve Bank of India announced last year that the goal was to raise digital transactions from almost 10% at the time to approximately 15% of its gross domestic product in 2021. Beneath the world's fastest-growing smartphone market customers can transact with a click of a button, the government aims for one billion digital transactions every day. The state has asked banks to allow customers to apply digital payment methods as a hedge against the outbreak of the Coronavirus. In the aftermath of the Coronavirus outbreak, RBI also advised customers to use digital banking facilities.

In summary, Covid 19 has had a dynamic and multi-faceted impact on the digital economy. The gradual move towards digital payments is likely to be stepped up. The new insights and opportunities have also been discovered, and these can be only harnessed by due agility and flexibility in the expected transition, for Indian companies and individuals.

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