



Impact of COVID-19 Pandemic over Debit Card Driven Transactions in India: An Analysis

Dr. Vinod Kumar Yadav

Assistant Professor, Department of Commerce, Rajiv Gandhi University, Arunachal Pradesh

Email: vinod.yadav@rgu.ac.in

Dr. Tashi Phuntso

Associate Professor, Department of Economics, Government College Bomdila, Arunachal Pradesh

Email: Phuntsotashi007@gmail.com

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ABSTRACT

The demonetization and ongoing COVID-19 pandemic have strong impact on the cashless payment in India. These incidents are predominantly and proactively associated with the promotion and popularity of cashless transactions across the country. The former was an anthropogenic incident whereas the latter is an accident that took the whole economy and society into its grip and thereby whole Indian economy got adversely affected. These incidents facilitated the materialization the vision of cashless Indian economy to a great extent. The continuous and comprehensive development in advanced technology has made the cashless society feasible. The Government of India has been very sincere and serious to the development of non cash payment system in India. The endorsement and expansion of cashless payments are temporal obligations against the twenty first century generation. The current paper is an attempt to study the impact of COVID-19 pandemic on debit cards driven transactions in India. Under the current study, it has been observed that the ongoing pandemic has significantly adversely impacted the debit cards operated transactions in the country. However, factors responsible to this situation are not



well known except the loss of jobs and works of the majority of workforce accommodated in the unorganized sector.

BACKGROUND

Transformation and convergence are two prominent forces shaping the payment industry across the globe. The global payments landscape is on the verge of fundamental transformation. The world of payments of the twenty first century will be altogether different. Alternative payments such as e-wallets, mobile and digital currencies, are playing an increasingly prominent role in the payments space. The National Payment Corporation of India (NPCI) has been actively engaged in expanding the range of services to its diverse customers (Global Payments Report, 2020). KMPG India (2020) has observed that COVID-19 has a profound and significant impact on digital modes of payment in India. Indians have proclivity and propensity to deal in cash. However, COVID-19 has marked an evident impact in marginalizing cash transactions. COVID-19 has been proved a silver lining in many ways in India. Apprehension towards digital payments, lack of awareness, poor infrastructure, technicality, cost involved, etc. have been major reasons behind non-adoption of digital payment by common masses in India. Lee (2020) has observed that there has already been significant downfall in cash usage. Moreover, it has been noted that the future of contactless payment is very promising as COVID-19 is expected to cause a drastic decline in cash transaction habit of common people.

Research & Markets (2020) has outlined that the corona virus outbreak has not only transformed the pattern of shopping but the payment pattern also. Moreover, COVID-19 pandemic has brought unprecedented growth in contactless payments. Luthi (2020) has noted that cashless payments have recorded an unprecedented growth during the COVID-19 pandemic period. Cashless payment methods are often beyond the outreach of unbanked people. Therefore, cash remains the only payment option for many people. Runkel (2020) has concluded that the transition from cash transaction to cashless transaction has been very difficult across the globe due to low general acceptance of cash payment methods, limited access to advance technologies, and heavy reliance on conventional markets. However, these are not the latest reasons for the lower acceptance of cashless payments in the society.

Chakrabarty (2020) has said that the dearth of currency notes led by demonetization in 2016 forced people to adopt cashless transaction mode. The advancement in digital payment technology and its gradual adoption in post demonetization period enabled society to cope up with COVID-19 pandemic life style. Youssef (2020) has claimed that demonetisation-2016 laid down foundation for the wide spread



adoption of digital payments and digital wallets. Thus, today's India is no more unfamiliar with cashless payments. Younger generation is more confident with digital payments or cashless transaction than elderly generation due to technological exposure and awareness. Ramachandran (2020) has asserted that the COVID-19 pandemic has recorded manifold growth in digital transactions. Three overarching requirements of cashless India are higher internet penetration, laying of fibre optic cable network throughout the country, and leveraging the power of satellite to connect the remote and difficult locations. Internet is not the only barrier to adoption of digital payments but awareness to digital payments and security of data also. Singh (2020) has said that the RBI has witnessed the unprecedented growth in the popularity of cashless transactions after the outbreak of corona virus, despite decline in transactions led by slowdown in economy. However, cash economy is deeply embedded into the payment system of our country.

Cox (2020) has observed that the pandemic has enhanced our reliance on cashless payments. Contactless and mobile payments have made spending money more convenient than ever for consumers. Digital payment is not just an option, but the need of hour. Beniwal & Ghosh (2020) have claimed that COVID-19 pandemic has achieved what demonetisation-2016 could not i.e. cashless or digital payments. India's per capita digital payments has grown more than five times. However, India is still far away from going beyond its strong conventional attachment to cash. Digital payments are largely an urban phenomenon. Shukla (2020) has observed that demonetization disaster 2016 caused havoc on Indian economy, which has not been fully recovered so far. However, one of its implications that is the popularity of cashless transaction in the society that will be helpful in managing the pandemic problem. Mukhopadhyay (2020) has described many pros of going cashless for India like reduction in high cash maintenance cost, financial record, tax collection, financial inclusion, control over leakage, etc. it has been concluded that India has started migrating towards a cashless economy. Podile & Rajesh (2017) have observed that the demonetization-2016 forced society to endorse cashless transactions. India has been shifting from cash to cashless economy. People are gradually getting familiar and comfortable with cashless transactions. India cannot become a cashless economy until and unless prevailing issues and negative perceptions of people to cashless transactions are addressed.

There has been a big dilemma to identify the demonetization and COVID-19 pandemic as burden or blessing as at the outset both the incidents proved catastrophic to our Indian economy and society as well. But when it is seen from the perspective of growth and development of non cash or cashless or digital payments in India then they seem to be the positive incidents as they proved bedrock in the development of cashless society leading to the formation of cashless economy in India. Both the



incidents, especially COVID-19 pandemic brought the Indian economy and society to a complete standstill. Indian economy needs to take an urgent call to address the issues and challenges posed by demonetization and COVID-19 to streamline the economic activities for the inclusive and sustainable growth and development of the country. Neither demonetization nor COVID-19 pandemic was cashless or non cash oriented at the outset. However, circumstances created by these incidents made them deeply linked and suitable to digital or cashless payment promotion in India. Therefore, the so called association between plastic money driven transactions and pandemic needs to be empirically analyzed and verified, otherwise it would be merely a hunch not a valid proposition.

OBJECTIVE OF STUDY

The present study has following two main objectives:

- To analyze the impact of COVID-19 pandemic on debit card driven transactions [i.e. frequency and amount of transactions] in India.
- To study the gap between pre COVID-19 and post COVID-19 debit card operated transactions in India.

METHODOLOGY

The current research paper is an empirical cum exploratory by nature, which is purely based on secondary data. For the purpose of studying the impact of COVID-19 on debit cards driven transactions, the overall study period has been categorized into two parts as Pre COVID-19 period and Post-COVID-19 period. The first twelve months of post COVID-19 i.e. April 2020 to March 2021 have been taken as post COVID-19 period, and corresponding twelve months of the 2019-2020 i.e. April 2019 to March 2020 have been taken as pre-COVID-19 period. The ongoing COVID-19 pandemic took both the Indian society and Indian economy into its grip from April 2020 onwards. Therefore this time period has been taken as the justified time period of study. Paired t test has been applied for the purpose of data analysis under the current study.

REFERENCE PERIOD

This study is an attempt to study and analyze the impact of COVID-19 pandemic on debit card driven transactions in India. The first COVID-19 case was identified on 31st December 2019 in Wuhan city of China. However, the first COVID-19 case was identified in India on 30 January 2020. COVID-19 was declared a pandemic by the WHO on 11th March 2020. Government of India announced lockdown in



the last week of March 2020 with effect from 25th March 2020. Thus, Indian society and economy started observing the explicit influence of COVID-19 from April 2020 onwards. Therefore, under this study the first twelve months of post COVID-19 period [i.e. from April 2020 to March 2021] and the corresponding twelve months of 2019-2020 as pre-COVID-19 period [i.e. from April 2019 to March 2020] have been taken as the basis of current study.

RESEARCH HYPOTHESES

H₀₁: There is no significant difference between pre COVID-19 and post COVID-19 period debit cards driven total monthly transactions.

H₀₂: There is no significant difference between pre COVID-19 and post COVID-19 period debit cards driven total monthly transactions' amount.

H₀₃: There is no significant difference between pre COVID-19 and post COVID-19 period per debit card operated total monthly transactions.

H₀₄: There is no significant difference between pre COVID-19 and post COVID-19 period per debit card operated total monthly transactions' amount.

DATA ANALYSIS & INTERPRETATION

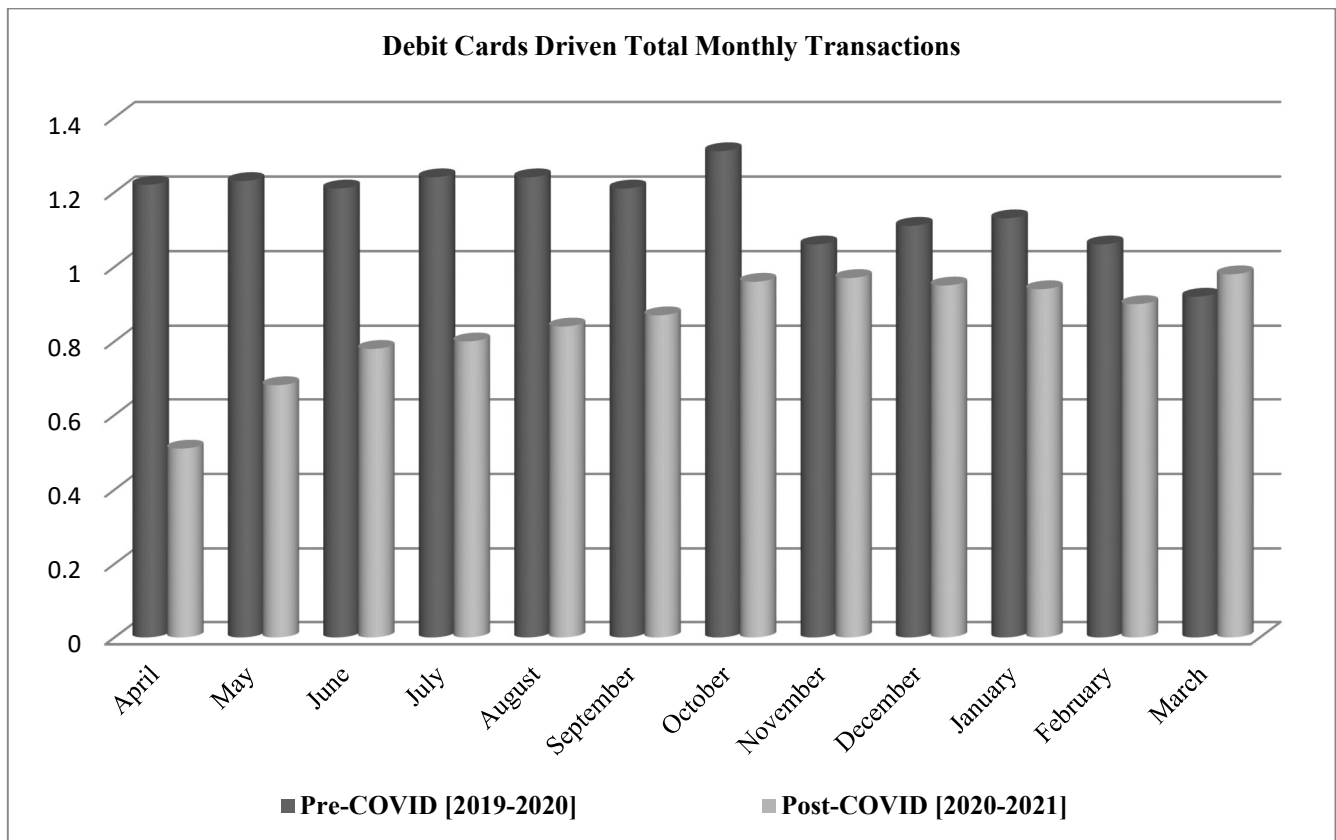
The ongoing pandemic has brought the entire global economy, especially Indian economy to a standstill. The entire global society was forced to stay home so as to avoid public contact because of the widespread danger of corona virus spread. Food is one of the unavoidable basic needs of the society. We may stop doing work for a while but healthcare and hunger are inevitable for human beings. Therefore, procurement of items fulfilling the basic needs of human being is essential irrespective of the situation whether be it pandemic or anything else. Physical distancing as a strong measure of control of corona virus spread reduced the widespread cash transactions, and promoted debit or credit cards driven and internet operated cashless transactions. Cashless transactions proved better alternative to cash based conventional transactions while maintaining zero public contact. Thus, society gradually switched to cashless or digital transactions from the direct cash transactions. The COVID-19 pandemic has brought a drastic change in the pattern of marketing and behaviour of the society as well. Thus, the ongoing pandemic has left no stone unturned from promoting and popularizing the cashless payments across the world. Plastic money i.e. debit or credit card is the most popular medium of cashless or non cash



transactions in India as it can be used in multiple ways while purchasing goods or availing services off line or online.

Null hypotheses framed for the present study have been analyzed in Table 1, Table 2, Table 3, and Table 4 respectively.

Table 1: Status of Debit Cards Driven Total Monthly Transactions

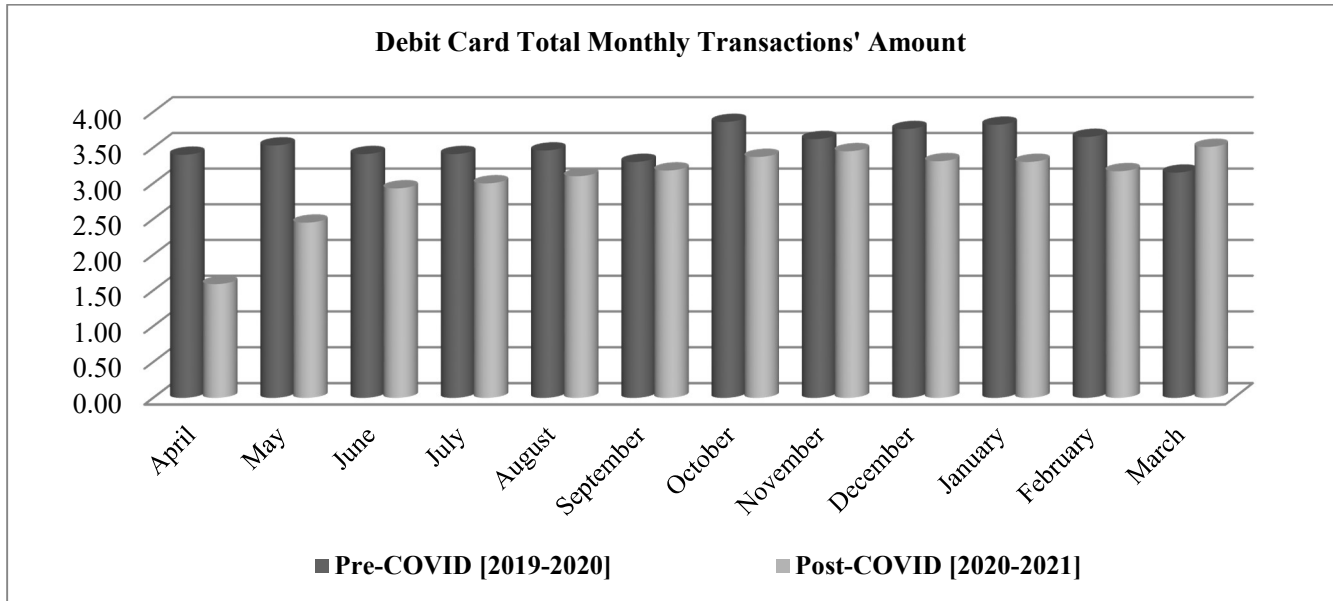


Source: Reserve Bank of India [Derived]

Note: Approximate Billion Figures

| S.No | Hypotheses | Critical Value | t-Value | Level of Significance (α) | P-Value | H ₀ :Accepted/ Rejected |
|------|---|----------------|---------|------------------------------------|---------|------------------------------------|
| 1 | There is no significant difference between pre COVID-19 and post COVID-19 period debit cards driven total monthly transactions. | 2.20 | [5.11] | .050 | .0003 | Rejected |

Table 2: Status of Debit Cards Driven Total Monthly Transactions' Amount

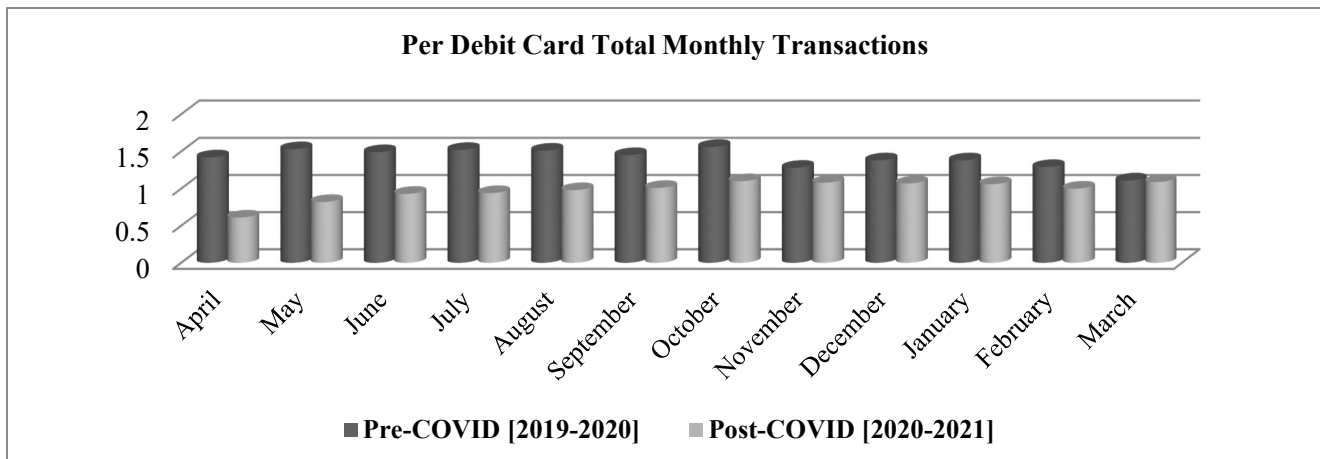


Source: Reserve Bank of India [Derived]

Note: Approximate Trillion INR Figures

| S.No | Hypotheses | Critical Value | t-Value | Level of Significance (α) | P-Value | H ₀ :Accepted/ Rejected |
|------|---|----------------|---------|------------------------------------|---------|------------------------------------|
| 2 | There is no significant difference between pre COVID-19 and post COVID-19 period debit cards driven total monthly transactions' amount. | 2.20 | [3.28] | .050 | .007 | Rejected |

Table 3: Status of Per Debit Card Total Monthly Transactions



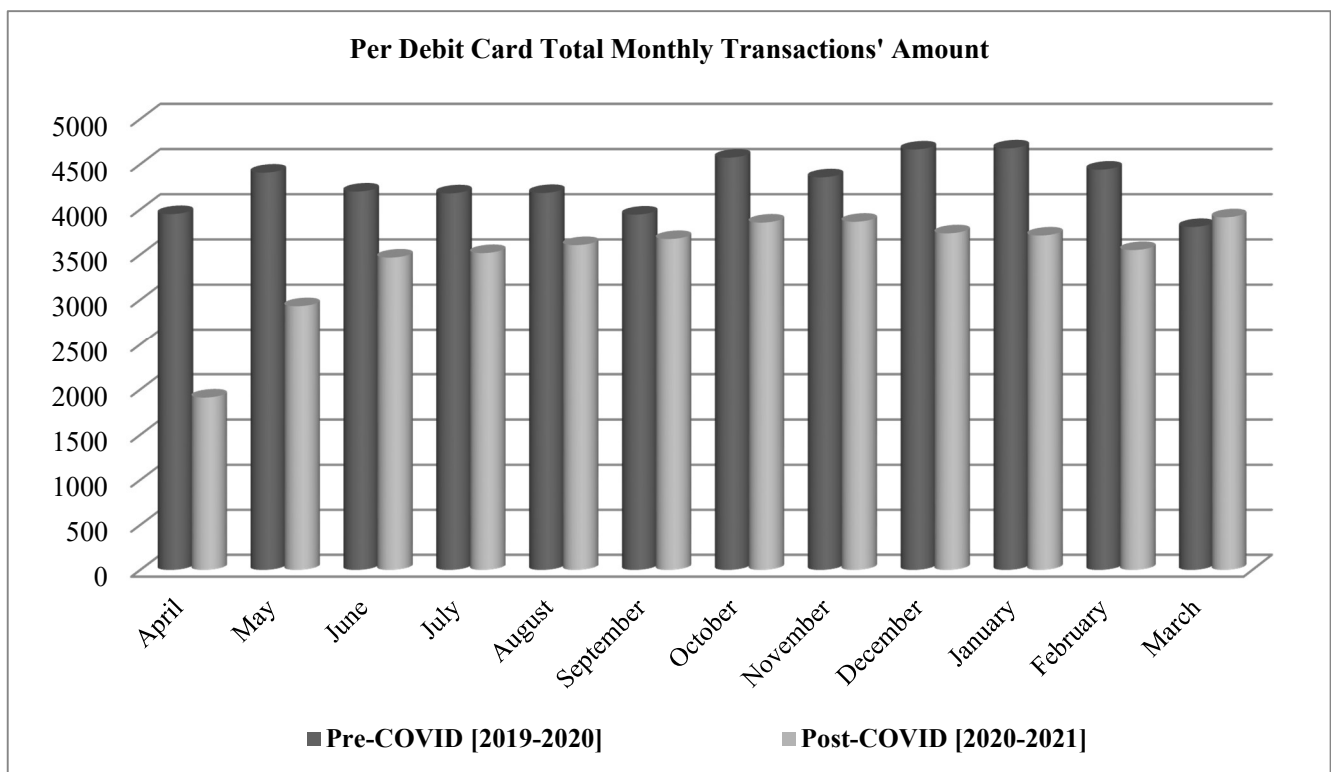
Source: Reserve Bank of India [Derived]



Note: Approximate Figures

| S.No | Hypotheses | Critical Value | t-Value | Level of Significance (α) | P-Value | H ₀ :Accepted/ Rejected |
|------|--|----------------|---------|------------------------------------|---------|------------------------------------|
| 3 | There is no significant difference between pre COVID-19 and post COVID-19 period per debit card driven total monthly transactions. | 2.20 | [6.78] | .050 | 0 | Rejected |

Table 4: Status of Per Debit Card Total Monthly Transactions' Amount



Source: Reserve Bank of India [Derived]

Note: Approximate INR Figures

| S.No | Hypotheses | Critical Value | t-Value | Level of Significance (α) | P-Value | H ₀ :Accepted/ Rejected |
|------|------------|----------------|---------|------------------------------------|---------|------------------------------------|
|------|------------|----------------|---------|------------------------------------|---------|------------------------------------|



| | | | | | | |
|---|--|------|--------|------|-------|----------|
| 4 | There is no significant difference between pre COVID-19 and post COVID-19 period per debit card driven total monthly transactions' amount. | 2.20 | [5.06] | .050 | .0004 | Rejected |
|---|--|------|--------|------|-------|----------|

As per the analysis of the debit card driven transactions based on RBI data from April 2019 to March 2020 [as Pre COVID-19 Period] and from April 2020 to March 2021 [as Post COVID-19 Period], it has been crystal clear that there has been a significant difference between Pre COVID-19 and Post COVID-19 one year duration debit card driven transactions [both in volume and value]. Thus, it denotes that during the post COVID-19 one year period debt card operated transactions [both in volume and value] have been significantly reduced as compared to pre COVID-19 one year period debit card operated transactions [both in volume and value]. This result indicates the fact that the spending capacity of the majority of the population has been significantly reduced due to numerous explicit and implicit reasons. The abrupt job loss of job or work of the millions of working population made them economically paralyzed because of loss of job led by lockdown and widespread fear of corona virus spread. Thus, earning capacity of the majority got jeopardized that has been reflected through significant reduction in the post COVID-19 one year period debit card operated transactions. Therefore, it can be concluded that the debit card driven transactions [both in volume and value] have been significantly reduced during the post COVID-19 one year period [2020-2021] as compared to the corresponding period debit card driven transactions of 2019-2020 as pre COVID-19 period.

Conclusion

It has been in wide circulation through diverse media channels that COVID-19 has attracted Indian consumers towards debit and credit cards driven cashless transactions all over the country irrespective of the geographical, social, and economic scenario. Undoubtedly cashless or digital transactions have been consistently growing with the introduction of advanced technology, and ongoing digital infrastructure development across the country. Universal acceptance of cashless is the demand of the hour, and our rational response to the ever growing needs of the dynamic economic world. However, the non cash transactions can never fully replace the direct cash transaction in developing countries like India, where a large population of the country is still today far away from the access of the basic formal



education, fulfillment of minimum basic needs, and general employment opportunity. Therefore, majority of working population of India is engaged in the informal sector. Furthermore, there are many other overt realities like lack of cyber security, weak digital infrastructure, no concerted action with regard to awareness to cashless or digital payments, widespread illiteracy and poverty, technical issue and costly affair, digital divide, etc. that can be attributed to the non adoption of cashless transaction by common masses of India. In India, debit card is the most accessible and affordable medium of cashless or digital transactions. Thus, understanding of the impact of the pandemic on debit cards driven transactions would develop insights to current status of employment and earning of the majority population that gets reflected through the value and volume of the transactions made.

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