

CASH TO CASHLESS ECONOMY- A WAY TOWARDS FOURTH INDUSTRIAL REVOLUTION

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ABSTRACT

Industry 4.0 is synonym with forth industrial revolution which represents the modern control systems embedded with software systems and dispose of an Internet address to connect and be addressed via [IoT](#)(*the Internet of Things*) using smart machines. At the midst of transformation stage concerning the methods of production and digitalization of manufacturing the biggest challenge of our economy is smooth functioning of manufacturing through cashless system. Due to digitalization our economy is transforming from cash to cashless which can be a helping tool to curb out black money and money laundering type of problems. However making country cashless is also having certain challenges and problem such as security concerns and lack of technological skills. Thus the present paper is the analysis of cashless economy its benefits and challenges.

Keywords:-Cash, cashless, economy, transformation, digitalization.

1. INTRODUCTION

In this era of techno sphere where the whole world has already moved from cash transitions to cashless transactions, India is still behind other developed nation, but the introduction of “*digital India scheme*” by government of India in the year 2015 was the biggest reason for converting cash economy to cashless. Demonetization and digitalization are the major step taken to deal with the issue of black money, even many money laundering cases discouraged businessmen and industrialists.

Globally the digitalization has been initiated and is in practice long back as compared to India, although the rate of growth of digitalization in our country is going very fast. UPI or unified payments interface is an instant real time payment system which transfers money immediately in between two bank accounts through mobile phone application, where in India through Paytm, Google pay, BHIM-UPI Cashless economy, today you can see most of the street venders are also having UPI payment facility.

This concept of UPI has been given by National Payments Corporation of India and controlled by Reserve Bank of India and Intelligence Bureau. It allows multiple bank accounts to get into a single mobile application. Even there are multiple benefits of being cashless is fall in government expenditure in printing notes, lesser need of ATMs positive impact on GDP as UPI transactions are associated be bank accounts will decrease in tax evasion and increase in tax collection. When people do not require holding cash in their house and pockets, thieves and pickpockets will become jobless and our economy will definitely go into the era of legal and white economy.

1.1 EVOLUTION OF CASHLESS ECONOMY

Cashless economy is not a new concept when barter system was there and there was an absence of money 8000 years back by Mesopotamians and in the times of Great Depression this barter system again came back due to lack of money. As we all know that barter system had so many drawbacks like lack of double coincidence of wants, measure of value, store of value and many more. Then human discovered valuable metals 3500 years back as gold, silver and bronze used as a form of money.

Later, these gold silver, bronze and even copper coins were introduced for the convenience. Very soon the scarcity of these metals started because the remaining metal while making these coins were used to make bars, rings and jewellery but peoples preference for holding the money was not for making transactions but to keep it with them for the purpose of making jewellery.

Thousand years ago a Chinese merchant invented the first form of paper money and when one of the European came back from Chine in the 13th century he introduced money there. Then, the development of the forms of money became very fast ,14th century was the century of introduction of cheques and the very first form of cheque which were handwritten and were quite popular was introduced in 17th century and replaced by printed cheque books in 18th century. Then, the age of money transfers started with wire transfers services in mid of 19th century by Western Union transfers. 20th century was the century of convenience of plastic cards which we know as credit cards, debit card started with cheque guarantee cards.

Finally, in late 20th century and early 21st century the digital transactions using innovative technologies have emerged with a new wave of cashless payment technologies with the first online bank transition offered by Stanford Federal Credit Union for all of his customers, Paypal was launched in 2000 allowing

online money transfers between individuals which was a huge success with 7.6 billion payments and 254 million customers till 2017. In 2007 mobile money transfer was introduced by Western Union tied up with GSMA. Apple pay, Paytm, Google Pay, Bharat Pay are the now a days mobile money transfer modes in this era of cashless economy.

1.2 CASHLESS ECONOMY IN INDIA

On November 2016 largest demonetization of Rs. 500 and Rs.1000 was a sudden step and faced lot of criticism because it has not given immediate effect as per the expectations. Similar kind of step has been taken by earlier government in 1946 and 1978 but this time such a sudden demonetization was a big shock to people and government's intention was to attack on counterfeit money or the money used by terrorist and corrupted people.

Later, when the government realize that such step was not a fruitful to curb the parallel economy, government took various actions to encourage cashless transactions as digital payments. Such digitalization of monetary transactions was the only solution to come out from this severe drawback of demonetization and absence of currencies in circulation. In this direction in June 2016 RBI has given commitment to encourage electronic payments by all the sectors and sections of the society as much as possible and use of cash as less as possible. This expansion of digital payment system with infrastructure facilities is needed to uplift the country via The Vision-2018 for Payment and Settlement Systems in India contains five Cs- Coverage, Convenience, Confidence, Convergence and Cost. It contains four strategic initiatives like responsive regulation, robust infrastructure, effective supervision and customer centricity.

1.3 IMPACT OF CASHLESS SYSTEM ON INDUSTRIES

Cashless transactions along with demonetization were a kind of a revolution in the business world of India. Not only large scale industries but micro, small and medium enterprises as well benefitted from it which expanded the customer base, industries now can gain broader market access, streamline operations and go forward to more transparent payment chain. UPI transactions have changed the payment pattern which has fastened the transactions between not only from B2C i.e., business to customer but also from B2B, i.e., business to business. Inclination towards paying online and paying through UPI has changed the buying as well as the selling pattern of in industries, now it's very easy for people to do business online and do transaction without physical presence.

2. REVIEW OF LITERATURE

Hasan Aslam, Atif Aman Mohammed, Ali Ashraf Mohd (2020):- Concluded that Indian movement have laid more emphasis on cashless economy to control black money and corruption within the nation and to achieve it various campaigns and schemes have also been introduced to make people aware and motivated. Different digital payment modes were also launched to make cashless transaction easy and eco-friendly. Regardless only 17% of the population are making frequent cashless transactions. Most of the population is reluctant to use digital mode of payments due to privacy and security reasons. Lack of education, knowledge and infrastructural facility is also few major reasons behind not using cashless mode of payment by two- third of the population.

Dr.V.Chandrakala (2019)investigated that response of the people of our country is very positive and supportive towards move of the government; it shows that India future as a cashless economy looks pretty promising. Country's GDP can be increased by the digital gateway which will encourage transparency through e-commerce transactions linked with bank accounts, which will definitely a boost in investments and rise in credibility of India. To attain vision of Digital India our prime minister's effort towards cashless seems truly going to achieve big success.

Dr. Anthonima K. Robin (2018): Studied that cashless transactions have long term impact on a country though it has both positive and negative sides as well due to demonetization. People are having the feeling of safety and security as they do not need to carry wallet with physical notes along with them, which is very risky in this world of pickpockets and anti-social elements. Not even online money transfer or use of debit or credit cards, people are now a days preferring mobile phone as a mode of payment for their miscellaneous purposes like fund transfers, recharges, fees and bill payments, etc. On the other side crimes like extortion, bank robbery, burglary, etc. are also decreasing and that was the one of the motive to control on the illegal activities and transactions and other activities related to terrorism behind making economy cashless.

Budheshwar Prasad SinghraulV (2018): Focus of the study is to determine the position of India in terms of the methods of digital payments which found still very poor in comparison to developed nations of the world. Where many countries are already tuned up with their digital payment system, India is having many loopholes and is still at the beginning stage where majority of the population till now is dependent on paper money based transaction due to the reasons like lack of awareness of e-payment modes, absence of internet

connectivity, charges on card payment and absence of an operational bank account.

Tigari Harish (2018) examined that the dream project of Government of India to make Digital India was to replace our traditional economy with the knowledge one and conventional methods with the new technique which lead to rise in standard of living, employment opportunities, literacy in using new technological methods and fall in risk and uncertainty. Reason behind withdraw of five hundred and one thousand rupees demonetization which was the fundamental motive to approach the digital mode specifically in the field of business where we can see the online financial services, marketing and other online trading activities. For this advancement of information and communication technology plays a vital role for the faster growth of the economy.

Kousalya P.R & Shankar R Guru (2018) concluded that the benefits of this digitalization started with switching from traditional mode of payment to digital one and India is gradually transforming from cash-centric to cash less economy. Digital transaction is easily traceable and thus enables us for easy taxation and check on illegal circulation of black money. This whole process of modernization of money transactions with e-commerce and e-payment services would be a motivation for large number of business, even street vendors who are now accepting electronic payments.

Preeti Garg & Manvi Panchal (2017): studied that there are so many people who consider cashless transitions as a positive step and use of cashless economy is very helpful to fight against corruption, money laundering and terrorism, but it is risky as well because it has a major issue of cybercrimes and illegal access to primary data which may result in online frauds. There is an urgent need to strengthen the internet security against online frauds. Majority of population lives in rural area and illiterate who are the deprived one and the needy one. More transparency and efficiency in e-payments, motivating people by licensing payments via government and Reserve Bank of India, promoting mobile transactions using UPI and financial literacy to aware digital payment should be the priority by the government.

Das (2010) have claimed in his article “Cashless Payment System in India-A Roadmap” that we should replace cashless from cash-based payment system because cash as a medium of payment is very expensive one for the government It has so many benefits such as reduction in currency management cost, track

transactions, fall in tax evasion, check on corruption and frauds, encourage financial inclusion and put the parallel economy on the track.

Alvares, Clifford (2009) discussed that problems related to fake currency in India in their report and stated that its very difficult to fight against fake currency and detect it and only solution to trace these counterfeits hitherto and only solution of it is make the whole economy cashless and restrict printing facilities.

Bassey (2008) has categorized challenges into basically three categories i.e. regulatory, infrastructure and culture-cum human dimensions, among these infrastructure is the most important where the networks, accessibility, affordability and usage all comes under this and there are the main reasons behind lack of adoption of e-payment system.

3. OBJECTIVES OF THE STUDY

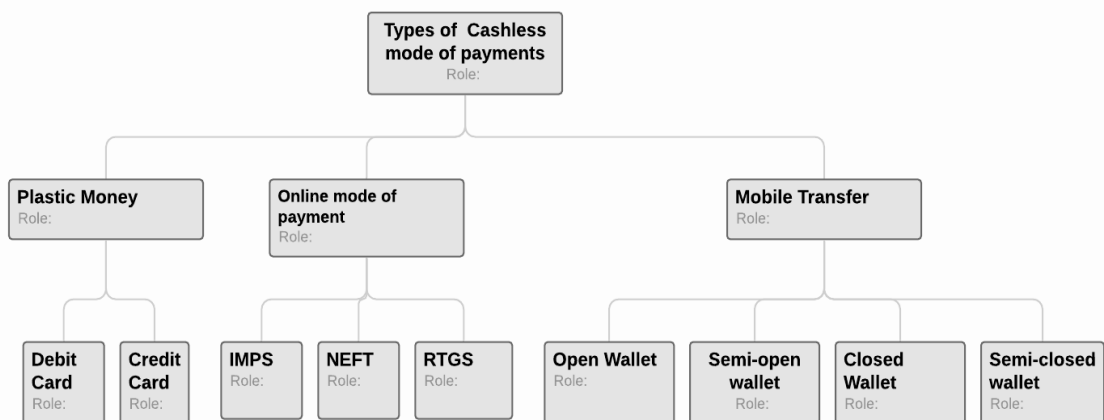
- 3.1 To understand the status of cashless system in India
- 3.2 To determine the loopholes in cashless system in India
- 3.3 To analyse and come up with future suggestions to make country cashless.

4. STATUS AND SCOPE OF CASHLESS ECONOMY ON INDUSTRIAL SECTOR OF INDIA

4.1. Government Initiative

With the introduction of Digital India Scheme our Prime Minister Mr. Narendra Modi had a vision to make our country cashless and the country has started converting our economy from traditional cash economy to cashless through electronic channels like direct transfer through debit and credit cards, immediate payment services (IMPS), national electronic fund transfer (NEFT) and real time gross settlement (RTGS). Later government encouraged mobile wallet as well.

Fig. 1 MAJOR TYPES OF CASHLESS MODE OF PAYMENT IN INDIA



Source: - Authors Own

1. Plastic Money:- Plastic money are not actually money in plastic form but these plastic money includes credit cards and debit cards, prepaid card are also a type of plastic money but not that much popular. Debit cards are also called ATM cards which are used to withdraw money but government always encourage people to transfer money online, swiping is also encouraged by government and most of the traders had it before the introduction of mobile UPI transfers. Swiping of card system was the very first step took by government, where government availed swipe card machine to traders. Similarly, credit cards are also a form of cashless loan facility where a customer purchase things on credit by using his credit card and customer has to pay to bank after a specific period and that too from his account.

2. Online mode of payment:- Under the electronic payment government then encouraged online payment mode, where instead of taking money from bank or debit card people can transfer the money through various options such as:-

- **Immediate Payment Services (IMPS):-** This is a kind of money transfer instantly in the case of urgency, this facility is available by Reserve bank of India and National Payments Corporation of India (NPCI) in 2010 with the help of a pilot projects with only 4 main banks and now more than 150 are availing this facility and the charges for using this facility is also very nominal with considerable. Today this facility is present in mobile as well to make is more convenient.
- **National Electronic Fund Transfer (NEFT):-** It is also one of the types of online mode of payment like IMPS but under NEFT transaction doesn't occur on the basis of real time it happens on a one to one basis and strictly during business hours only and with the restriction of 23 settlements only. It does not give facility of immediate transfer like IMPS and does not have maximum limit but you have to add beneficiary first and then you can transfer the money.
- **Real Time Gross Settlement (RTGS):-** Such kind of transfers under RTGS facility is done between bank accounts on gross basis and real time basis. Unlike NEFT, in RTGS there is no as waiting period while transferring funds that is why RTGS is more preferable than NEFT as it has high value transactions. There is a minimum amount required to transfer to be Rs. 2 lakhs and above but there is no minimum or ceiling limit in the case of NEFT that is the plus point with NEFT.

3. Mobile Transfers:- Mobile transfer can be called as the actual birth of cashless economy as this mode of transfer has minimise the issues faced by people in online payment and delays. After facing lot of problems due to demonetization and introduction of Unified payments Interface people's inclination toward mobile money transfer has been increased drastically. SMS banking is one of the mode of mobile transfer and very useful for those who do not have smartphone and internet connection. After a simple registration process an individual can use their SMS banking services.

There are basically four types of e-wallet mobile transfers:-

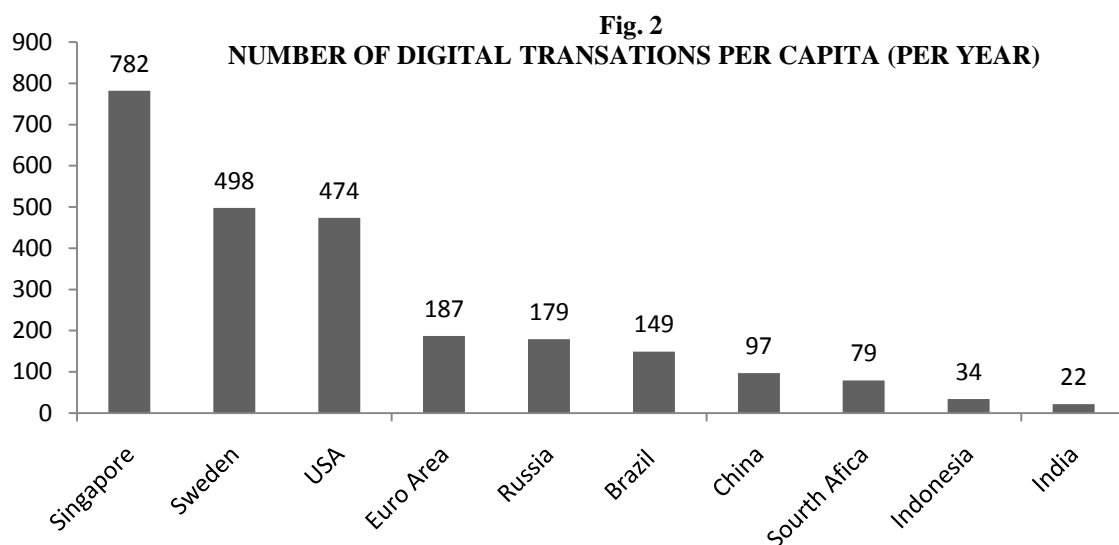
- **Open Wallet:-**Such kind of services can only be jointly launched with banks where this wallet allow you to purchase goods and services along with cash withdrawal at ATM or banks as well as transfer funds Money can be send It can be said as online credit card up to a pre funded amount. It is very beneficial for those who do not use internet banking.
- **Semi-Open Wallets: -**Here one cannot get back or withdraw cash from semi-open wallets. Airtel Money/Ola Money is the best example of it. It permits you to transfer money to any mobile number linked with a bank account.
- **Closed Wallets:-**This is mostly used in e-commerce companies in which a particular amount is locked with the merchant in the situation of cancellation or return of a good or a gift card. Flipcart and Book My Show are some of the examples of Closed Wallets.
- **Semi-Closed Wallets: -**Redemption and cash withdrawals are not allowed in the case of semi-closed wallets, but it permits the customer to buy goods and services from the listed vendors only and provide financial services at the listed locations. Paytm is one the example of semi-closed wallets.

4.2. Public's response and fourth Industrial revolution

Public Response:- As per the study of Internet and mobile Association of India(IAMAI) and market research from Indian Market Research Bureau (IMRB) only 16% rural Indians access the internet for online payment mode as compare to 44% of urban one. As we know 66% of our population still resides in rural area, there is an urgent need to more focus on rural area to have effective impact through digital transactions.

Although the figures of India using cashless mode of payment is very disappointing if it is compared with the rest of the world and percentage of people using cashless mode of payment, but the performance and percentage increase is good if compared with the previous years. As per the report by Bank

for International Settlements(BIS) digital transactions in India has been increased by 55% last year as compared to China i.e., 48% and Indonesia which is only 23%. Even the cashless payments increased only by 10% in UK a developed economy. It is a clear indication that cashless payments are taking off in India as fastest growing cashless economy than other countries all over the world, may be our performance as compared to other countries is not that much good but growth shows the positive side.



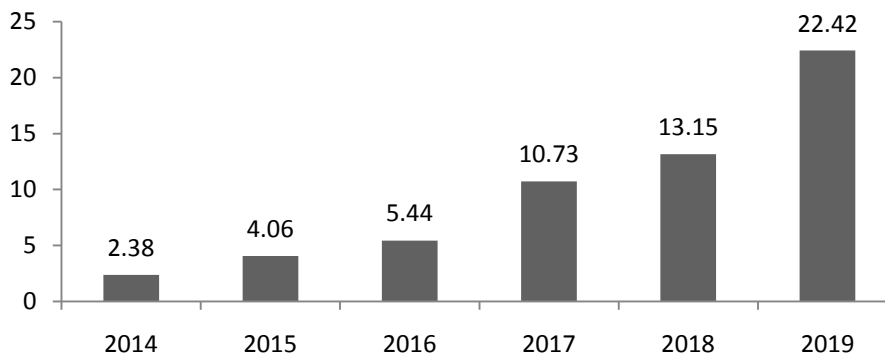
Source:- India's High level Committee on Deepening of digital Payments, RBI

* India's data is taken for March 2019 and for other countries for 2017

As per the report of India's High level Committee on Deepening of digital Payments the number of digital transactions per capital per year is only 22 which is far behind to other developed nations, Singapore stands 1st with 782 digital transactions per capita in a year. India's data was taken for the year 2019 and others for 2017 still India is lag behind these nations.

It has been found that the currency in circulation has been increased by 17% to 21.10 lakh crore in the financial year 2019 and cash transaction is still present in the rural parts of our country which needs to address. On the contrary if we see the rate of growth which is very encouraging.

Fig.3
PER CAPITA DIGITAL PAYMENT BY INDIANS



Source:- India's High level Committee on Deepening of digital Payments, RBI

The above graph proves that though India's position at international front is not that much good but the growth in the digital market transactions is remarkable from the year 2014 to 2019 the growth is 842% and the transaction value in the Digital payments is expected to reach US\$74,036 million in 2020 and total transaction value to show the annual growth rate is expected to be 16.7% during 2020-24 as per the CAGR and projected amount to be US\$137.461 million by 2024.

4.3 CASHLESS ECONOMY AND FOURTH INDUSTRIAL REVOLUTION

As today world is going towards industry 4.0, India needs to go with it which means there is an urge to adopt and adapt latest technologies in our industrial sector via supply chains. Industrial sector aims to boost the contribution of manufacturing sector from 15% to 25% of GDP in coming years. . IT industry is growing at the highest rate due to digitalization. As per the IBEF report India has become the digital capabilities hub globally and almost 75% of the digital talent is in India. IT industry in India has earned approximately US\$191 billion global service in the financial year 2020. Furthermore, it is expected that revenue from digital mode is going to form 38% of total industry revenue by 2025. Not only was this foreign direct investment (FDI) inflow US\$44.91 billion between March 2020 and April 2020

With the use of digital technologies with virtual and real world of production our production and industries can become global and master the endless increasing challenged in the dynamic and global markets. Digitalization in industrial sector surely promises lower cost of production and improved quality in production. It also avails flexibility and efficiency, shorter response time to customer requests and market demands. Thus, industry 4.0 opens the door towards innovative business opportunities.

Industry 4.0 will be the outcome of transformation of designs, manufacturing, operation and services of products into the advanced production system. Challenge here is for the government to make internet service available and economical special to small and medium enterprises (SMEs) faster the industrial sector by 30% and 25% more efficient to elevate the economy to the new level.

5.BENEFITS & CHALLENGES OF CASHSLESS ECONOMY

Undoubtedly cashless transactions are smoother and faster than the cash-based one which enables the business to set up with secured payment options with faster process and convenience however the countryman has to work a lot to make it as a habit of each individual. Following are some major benefits and challenges of Cashless Economy in India:-

5.1 Benefits

- More transparency and less chances of tax evasion.
- Check on corruption to run economy in more effective manner
- Adversely effect on crime, theft, terrorism and circulation of fake currency.
- Cost reduction on printing of notes by RBI
- Digital transaction makes the dealing faster and convenient

5.1 Challenges

- Majority of population lies under lack of digital literacy especially in rural area.
- Small vender doesn't reply on digital payment and thus not adopting digital transaction modes
- No use for illiterate and poor people who cannot adopt online mode of cash transactions.
- Lack of internet, infrastructure, banking facilities in many of the area of rural India.
- Deliberate unwillingness to adopt digitalization to hide from tax evasion.

6 SUGGESTIONS & CONCLUSION

6.1 Suggestions

Demonetization followed by digitalization have not fulfilled the target of Modi government after four years because of some gaps between the availability of internet connections, lack of awareness, infrastructural facility and many more.

Following are some suggestive measure to make this digitalization more effective:-

- Availability of basic infrastructural facilities like banking system, internet connections should be available especially in rural area.
- Removal of charges on any kind of digital transactions.
- Provision of tax benefits to those who are using digital payment mode.
- Digital literacy programs initiated by government should be run to remove digital illiteracy and ignorance
- Establishment of regulatory authority to check on the effectiveness and improvement required in cashless transactions.

6.2 CONCLUSION

No doubt the performance of India is good in last four years but to make it effective and after increasing in five-folds in last five years India's annual growth in per capita has reached 22 which is far behind to many of the other nations as per the Nilekani's panel the target is to make it 220 by the end of 2021. But without working on the services given by the online transaction companies as well as the government the number of consumer will rather decrease. Government have to think about the percentage of population using digital transaction rather than looking at the numbers. Government have to gradually make this cash based economy as cashless economy which is the only solution to find the ways to a successful country.

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