

Cashless India: (Leveraging Possibilities and Cyber Security Challenges)

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Introduction

To comprehend the digital security, first we need to realize what is the internet. The internet is the associated Internet Ecosystem. Digital Security is ensuring our the internet (basic foundation) from assault, harm, abuse and financial undercover work. Digital Intrusions and Attacks have expanded significantly in the course of the most recent decade, uncovering touchy individual and business data, disturbing basic tasks, and forcing high expenses on the economy. The word Cashless signifies "portrayed by the trading of assets with cheque, debit card or Mastercard, or electronic techniques as opposed to the utilization of money in cash." The thought process of the government is to move the economy from a money based economy to a cashless one. Productive and present day installment framework is a key empowering agent for driving development and advancement.

To empower and fortify cashless economy it's essential to demonstrate the propensity for making e-transactions and e-payments. Indian economy diminishing the reliance on money is alluring for a few reasons. To control fake notes that could be adding to psychological warfare. It additionally influence the financial arrangement of our nation and to dispense with the black cash, checks unlawful exercises and so forth. RBI has likewise issued licenses to open new-age Small Finance banks and installments save money with are relied upon to give a push to monetary incorporation

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and bring creative in managing account arrangements. cashless exchange is valuable to society in different means and ways, for example, spare time and cash, diminish cost, control the dark cash, control the unlawful exercises, increment the expense base and Government income, straightforwardness, responsibility and incite repayment and so on.

Without the web we can't think of Digital Payment. The historical backdrop of web was begun around in 1969 with ARPANET. In 1990 when web was going up we work somewhat computerized installment and in 1994 an organization which gives the office to the clients of saving money administrations which name is Stanford Federal Credit Union. At first the online installments was very little secure and easy to understand. In 1994 Amazon Co. was built up and a Pizza hovel begins makes the online sustenance requesting. In 1998 PayPal began a firm whose point is to give a remote exchange on our clients. After this PayPal were proceeds to grow new advancements like sending installments utilizing the Email.

For advancing computerized installment framework or go cashless in nation like India Security is one of the primary issue for individual overall. From the most recent couple of years we have seen numerous digital security assaults in everywhere throughout the world and in all segments like telecom, managing an account, web based business and so on with make digital security as greatest difficulties for world. In India, 3.2 million customers' card information was hacked. State Bank of India, India's biggest bank, on October nineteenth 2016, expressed that it had blocked near six lakh platinum cards following a malware-related security break in a non-SBI ATM organize. Because of the huge information rupture, Indian banks have chosen to either supplant or ask for clients to change the security codes. Be that as it may, in specific cases banks have chosen obstructed the cards or issue new ones.

Malware is noxious programming program that incorporate infections, worms, Trojans and whatever other strings that harms PC frameworks at ATMs or bank servers, and enables programmers to take private accreditations of clients and at whatever point client swiped their cards at a supposedly bargained ATM it is conceivable that information on card alongside security PIN to be transmitted to programmers and after that they utilize it unlawfully.

Objectives of the Study

- To analyze the extent of growth of cash less transaction in India.
- To find out the challenges of cash less Transaction and to suggest the possible measures to overcome them in relation to cyber security.

Research Methodology

This study is based on secondary sources of data/information. Deferent books, Journals, newspaper, and relevant websites have been consulted in order to make the

study made attempts to examine the growth and, challenges of cashless transactions in India and various concerns that involve due to cyber security. Also an attempt is being made to find out ways and means to protect from possible threats that can be there due to the use of internet and other means of e-payment system.

Key Points for the acknowledgment of Digital Payment

- According to Live Mint investigation on Mobile Internet clients in India, 24 March 2017, India is third biggest web client base on the planet with in excess of 300 million clients. Out of 300 million, 50 percent are versatile just web clients. This might speak to critical extensive information yet at the same time it speaks to just 19 percent of India's add up to populace utilizing web. This number may increment because of the computerized installment affect.
- The Government of India additionally makes a move and activity to build the advanced installment. As per KPMG, NASSCOM, June 2016, The Indian FinTech programming market is anticipated to contact USD2.4 billion in the year 2020 from the current USD1.2 billion.

Safe Routes go for Cashless Exchange

As India is experiencing a noteworthy change in the economy i.e Demonetization, it has extremely troublesome for economy to do exchange for merchandise and enterprises, installments and so on without the money close by. The reason for this isn't simply to expel dark cash yet additionally to energize cashless exchange. It's anything but a simple undertaking to remain in the long lines for pulling back money. To defeat this circumstance a major open door is to go cashless in this cutting edge time. Here are some best approaches cashless.

- Cheque
- Demand draft
- Online exchange
- National electronic store exchange
- Real time installment benefit
- Immediate installment benefit
- Credit or Debit cards
- E-Wallets
- Mobile Wallets
- Unified installment interface application.
- Gift vouchers
- Aadhaar empowered installment framework

Issues and Difficulties with Respect to Digital Payment System

- **Lack of Ease of Use:** Electronic installment framework requires vast measure of individual information or data from end clients to make exchanges like charge card installments through site requires expansive measure of data to make installment.
- **Inadequate Laws:** The laws identified with advanced installment are differing from customary laws or it might be hazy. E-wallets are goes under non managing an account budgetary organizations (NBFC) so the conventional saving money laws are not pertinent.
- **Data Assurance and Security:** Security compliances for "FinTech" organizations are gone under Section 43 An of the Information Technology Act (which covers information insurance). Albeit computerized managing an account is viewed as moderately sheltered however in most recent couple of months this emerges question in Indian Banking Security System in light of the fact that around 3.2 million check cards were hacked. So this is one of fundamental issue for India in the advancement of cashless economy.
- **Acceptance of e-Cash:** In numerous nations e-Cash isn't acknowledged in light of the fact that it isn't all around acknowledged on the grounds that it is essential that the retailers or some other business foundation acknowledge it as an installment technique.
- **Lack of Mindfulness:** Making installment online needs some learning to do it. This issue is more in rustic territories where individuals are as yet uneducated or less taught so they generally lean toward their conventional method to make installment as opposed to go to computerized one.
- **Lack of Grievance Redressal Mechanism:** Lack of complaint redressal is additionally one of the principle issues while doing installment carefully in light of the fact that there are no legitimate locations in regards to complaint. For instance, if the beneficiaries confront any deferral, or if there are inconsistencies in the installment sums, who is to be considered capable? Should the buyer go to the banks or to the pertinent government division starting the money exchange?
- **Cyber Security:** In October 2016 the points of interest of more than 30 lakh charge cards was dreaded to have been uncovered at ATMs. It was trusted that the card and PIN subtle elements may have been spilled because of which clients were informed to test the PIN with respect to their ATM-cum-check cards. Stringent advances issuing new cards were additionally taken so these are digital wrongdoings is extremely perilous to utilize the cashless exchange.

- **Network Connectivity:** Since the day demonetization was declared, individuals are endeavoring to utilize a greater amount of card exchanges to spare that feared trek to the bank and to spare the last cent of the hard money close by. Such a large number of individuals experience confronted difficulty remaining in line to pay for an exchange at a shop when the card machines have quit working because of an over-burden on the system. Network issues must be settled before imagining about a cashless society.
- **Internet Cost:** The Internet cost in India is still significantly high. There is no Wi-Fi at open spots and if individuals don't get their month to month information packs revived, its absolutely impossible they can be associated with make online installments. With the end goal to persuade individuals to do cashless exchanges, the expense of the web ought to be brought down and free Wi-Fi ought to likewise be given at open spots.
- **Charges on Cards Online Transactions:** Heard of comfort charges obviously we would have it we do online exchanges. These are extra charges that are demanded by the sellers when they offer an online installment office yet when the legislature is compelling us to go cashless ought not this mandatory seen on online exchange to be taken off. So charges of cards are principle issue of cashless exchange.
- **Non-Tech-Survey:** The new age is glued to their telephones and contraptions, PC proficiency among the general population in the over 50 age assemble is still now so very few individuals are open to utilizing PCs are cell phones and rely upon their youngsters with regards to utilizing PCs are cell phones and rely upon their kids when it to teach individuals on the best way to utilize telephones for exchanges.
- **Smart Telephone Affordability:** Several organizations have thought of new and reasonable telephones however they still not moderate for a large portion of the populace in India. More reasonable alternatives ought to be propelled by the legislature for individuals to purchase advanced mobile phones for cashless exchange. So advanced mobile phone moderateness is most imperative issue of cashless exchange.
- **Not Enough Bank Accounts:** So cash individuals still don't have ledgers. Frequently there is only one record for each family which likewise confines the quantity of cards individuals can have separately a group of even four individuals can't be subject to only one card for all family unit use so absence of keeping money learning is one of the primary issues of cashless exchange.
- **Internet Blockage:** States like Jammu and Kashmir frequently confront split down where the web is the principal thing that is blocked. In such

circumstances nor is it conceivable to utilize cards for exchanges nor is it conceivable to utilization of E-wallets.

- **Encourage People to Spend:** Spending via cards frequently urges individuals to spend all the more giving money by hand helps individuals keep an eye on their costs however paying by lowlifes gives individuals a genuine hand. Through acknowledge as well as even the check cards give that feeling that we can make that installment quickly.
- **Illiteracy:** One of the most concerning issues which India is confronting is lack of education. Around 30% populace is yet to be instructed. These are the general population who don't realize how to peruse or compose. Incongruity is that the individuals who are known as taught individuals a significant number of them realize how to utilize PC and web. So they are far from Internet Banking.
- **Lacking Foundation:** Lacking framework is one of the principle issue of cashless exchange retailers and buyers managed in real money since swipe machines are not accessible on extensive scale ATMs are accessible but rather those are not adequate. The vast majority of the nationalized banks lacking behind in giving endure clients needs to sit tight in ruler for long time for storing money in banks.

Opportunities of Cashless Exchanges

- It will be exceptionally advantageous for everybody if cashless exchanges are generally acknowledged. No Hassels to convey money and less unsafe.
- You can see history of your cost effectively and deal with your financial plan adroitly.
- All cashless exchanges end up over the ground and noticeable or traceable. So they are assessable and furthermore urge individuals to execute legitimately and make good on regulatory obligations.
- Tax gathering will increment fundamentally and that income can be utilized to serve society, for example, building framework, helping poor and less special individuals, instruction, human services and so on.
- As assess accumulation expands; impose rates can be decreased and charge rules improved
- Any fiscal serves to poor and destitute individuals can be through bank exchanges. No example of center men redirecting the guide and abusing poor people .This is combined with foundation so those individuals can utilize the cash in their financial balances for cashless exchanges.

- It will be hard to have fake cash and bolster criminal exercises and fear mongering.
- Much better information of Indian's GDP including casual and benefit segment to comprehend what area to comprehend what division are developing and where bolster is required.
- Less need to print paper cash and supplant it so diminishing those expenses.
- Riches put away with banks as investment accounts. FDs or speculations are utilized for gainful use rather than riches lying unused as heaps of cash bills covered up under sleeping cushions and in organizers

Government Provides Push for a Cashless Economy by Announcing Incentives for Digital Payments

- **Discount on Fuel Purchases:** 0.75% discount on buying petrol diesel through debit cards, credit cards and e-wallets.
- **Point of Sale Machines in Village:** Currently there are 6.5 lakh point of sale machines across the country. Villages with a population of up to 10000 will get 2 point of sale machines free of cost and that one lakh villages will be selected for this scheme of availing free point of sale machines
- **Ceiling on Monthly Charge on Point of Sale Machines:** Monthly rental for post terminal or micro ATMs or mobile point of sale given by banks will be capped at Rs 100.This is aimed at bringing small merchants on board of the digital payments eco-system
- **Discount on Suburban Railway Tickets:** Discount of 0.50% for purchase of suburban railway monthly and seasonal tickets from 1 January 2017.
- **Insurance Cover for Rail Travelers:** Railways will provide free accident insurance coverage of Rs. 10 lakh for passengers who are booking the tickets online. Currently 58% passengers buy tickets online.
- **Discount on Rail Utilities:** Railways will also offer 5% discount on digital payment for accommodation, catering and retiring room booking at railway stations.
- **Service Tax Exemption:** No service tax will be charged on credit and debit card payments on transaction of up to Rs 2000 in a single transaction.
- **Discount on Highway Toll :**For online payment of toll on national highways using RFID card or fast tags a discount of 10% will be offered
- **Discount on Insurance Premiums:** Customers paying payments through online gateways of public sector general insurance companies will be given a 10% discount. The discount will be 8% for premium of new policy made through the portal of Life Insurance Corporation.

- **Rupay Cards to Farmers:** Rural regional banks and co operative banks to issue rupay kisan cards to 4.32 crore kisan card credit card holders .This will benefit farmers of 1lakh village covering a total population of nearly 75 crore who will have facility to transact cashless by in their villages for their agri needs.

Government Gives Push to a Cashless Economy by Declaring Motivating Forces for Digital Transactions

- **Discount on Fuel Buys:** 0.75% markdown on purchasing oil diesel through charge cards, Mastercards and e-wallets.
- **Pont of Sale Machines in Villages and Town at Low or No Cost:** Currently there are 6.5 lakh purposes of offer machines the nation over. Towns with a populace of up to 10000 will get 2 point of offer machines free of expense and that one lakh towns will be chosen for this plan of profiting free purpose of offer machines
- **Ceiling on Month to Month Charge on Purpose of Offer Machines:** Monthly rental for post terminal or smaller scale ATMs or portable purpose of offer given by banks will be topped at Rs 100.This is gone for expediting little vendors leading group of the computerized installments eco-framework
- **Discount on Rural Railroad Tickets:** Discount of 0.50% for buy of rural rail route month to month and regular tickets from 1 January 2017.
- **Insurance Cover for Rail Voyagers:** Railways will give free mischance protection inclusion of Rs 10lakh for travelers who are reserving the tickets on the web. Right now 58% travelers purchase tickets on the web.
- **Discount on Rail Utilities:** Railways will likewise offer 5% markdown on computerized installment for convenience, providing food and resigning room booking at railroad stations.
- **Service Impose Exclusion:** No administration duty will be charged using a loan and plastic installments on exchange of up to Rs 2000 out of a solitary exchange.
- **Discount on Expressway Toll:** For online installment of toll on national interstates utilizing RFID card or quick labels a markdown of 10% will be advertised
- **Discount on Protection Premiums:** Customers paying installments through online doors of open area general insurance agencies will be given a 10%discount.The rebate will be 8% for premium of new arrangement made through the gateway of Life Insurance Corporation.

- **Rupay Cards to Ranchers:** Rural territorial banks and co agent banks to issue rupay kisan cards to 4.32 crore kisan card charge card holders .This will profit agriculturists of 1lakh town covering an aggregate populace of about 75 crore who will have office to execute cashless by in their towns for their agri needs.

Proposed Solution

To conquer the security issue of advanced installment and to empower cashless economy Government alongside RBI receives some imperative innovations and incorporate them in Online Payment Policy, which secure computerized installment all the more adequately. For instance

- **Encryption:** Encryption is essentially a procedure of changing over secret information and data in a type of code, which keep from unapproved get to. At whatever point we make online installment the main inquiry emerges in our mind that „is online installment safe and by how much?“. Anyway most online installment accepters utilize an encryption component to anchor client individual and installment data. There are different kinds of encryption method are being used which anticipate unapproved access or taking of client installment information like RSA (Rivest-Shamir-Adleman), Triple DES(Data Encryption Standard), Blowfish encryption, AES(Advanced Encryption Standard), and so forth.
- **Digital Signature:** The gatherings engaged with online installments, exchanges should utilize computerized marks with the end goal to guarantee validation of exchanges.
- **Firewalls:** Firewalls just means secure a framework or system from unapproved get to. Firewalls can be utilized to channel the approaching or active traffics dependent on an arrangement of security rules called as Firewall Policies. Firewalls strategies can be of two kinds :
 - Acceptance: Permitted the client in the wake of going through firewall.
 - Dropped: not permitted through with any sign of disappointment.

Suggestions and Recommendations

- Government is advancing Mobile wallets, Mobile wallet permits were to immediately send cash pay bills energize versatile book film tickets send physical and e blessings both on the web and disconnected these are the serves to the Cashless Economy.
- Licensing of installment banks is a standout amongst other proposals to advancing the cashless exchange. Since expanding installment banks consequently expanded to utilizing the cashless exchange to individuals so government need to permitting installment banks is great recommendation for cashless exchange

- Promotion of E-Commerce by changing the FDI standards for this division one of the recommendation to cashless exchange.
- Making electronic installment foundation totally protected and secure with the goal that episodes of cybercrimes could be limited naturally increment in individuals utilizing the electronic installments.
- Create a culture of sparing and confidence in money related framework among the rustic poor.
- Awareness to individual's cashless program identified with execution of cashless exchanges so expanding the cashless exchange in India.

Conclusion

Be that as it may, the activity taken by the Government of India to rub the old money has stun the economy however it exceptionally supportive in making mindfulness about computerized installment among the general population and because of this more individuals moving towards cashless economy and receiving advanced as their first decision and take an interest in the Government vision to make India Cashless and Smart. In any case, the security issue must be considered important by the Government and RBI and in addition Cyber Security of India and continue refreshing the Cyber Security Framework must be executed entirely and in an opportune way. Digital specialists likewise recommend the powerful method to deal with digital assaults.

To finish up a critical development of money less exchanges has been the instigation to computerized economy. It has lift to money related Inclusion endeavors. There has been a particular increment in legitimate sparing streams. There has been a sharp increment in the quantity of records. Which has given an increase in Banking part. India can't totally turn into a cashless economy considering its high extent of advanced absence of education and money exchange yet Indian government is progressing in the direction of expanding the offer of cashless advances which is something to be thankful for any economy. Be that as it may, this technique have such huge numbers of issues, for example, organize issue, ignorance, security issues, digital security, web cost, telephone battery and so forth. Government makes great moves to enhance the cashless exchange, Such as expanding mindfulness programs, increment impetus programs.

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