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Challenges for Indian E-Payment System

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ABSTRACT

The commercialization of Internet and the subsequent development of electronic commerce has resulted in a dynamic business environment where transactions take place without face to-face interaction. As the popularity of ecommerce is increasing, several payment systems have been created, which make the process of exchanging money over the Internet easier for consumers. Electronic payment systems can be defined as any payment system that facilitates secure electronic commerce transactions between organizations and individuals. These include systems such as electronic cash, e- cheques, smart cards and micropayment solutions such as PayPal. Despite the immense benefits derived from the use of this technology, it is threatened by certain issues and challenges. This paper seeks to identify those challenges or issues related to Electronic Payment Systems.

Keywords: Electronic Payment System, Challenges, India, Solutions

Introduction

With the immense growth of Internet, electronic-commerce has become an increasingly important segment of commercial activities on the web. Cash is no longer the king now. The adoption of digital payments is picking up an extreme pace and has helped the world to get transformed into a digitally empowered society. In particular, the digital payment system has revolutionized the Indian Economy and has helped to cope up with demonetization. Electronic payment systems have rapidly spring up as a means of business transaction globally and offers an inexpensive and direct way to buy or sell products and services. Despite the immense benefits derived from the use of this technology, it is threatened by certain issues and challenges which are discussed in this paper.

Types of Electronic Payment Systems in India

1) Banking Cards

Banking cards are more convenient, secure and provide better control than any other payment method. The wide range of cards available includes credit, debit and smart cards. These cards free the customer from carrying cash and cheques. Also the risk of theft becomes nil as it needs a PIN carry out a transaction. Visa, Master Card, RuPay are some of the example of card payment systems.

2) Digital Wallet (Electronic wallet)

Electronic wallets are a secure, convenient, and portable tool for online shopping. E-Wallets have been one of the biggest beneficiaries of the government's demonetization move, with India suddenly realizing the convenience they offer. E-wallet consists of e cash which is used for transactions made online through a computer or a smart phone. An E-wallet needs to be linked with the individual's bank account to make payments. .They also store personal and financial information such as credit cards, passwords and Pins. They eliminate the need for people to carry traditional cash. Their ease of accessibility and its range of uses has made it a very popular method of electronic payments. Examples include Airtel Money, Paytm, Google Pay.

3) Electronic Cheque

Electronic cheque is an electronic document which substitutes the paper check for all online transactions. E-checks make the use digital signatures for signing and endorsing and require the use of digital certificates to authenticate the payer, the payer's bank, and the bank account.. There are various websites that accept E-Cheques. Electronic checks are typically used in orders that are processed online and are governed by the same laws that apply to paper checks. Since these cheques are available in an electronic format, they can be processed in fewer steps and have more secure features than ordinary paper cheques.

4) Electronic cash

Just like regular cash, e-cash enables transactions between customers without the need for banks or any other third party.E-cash is transferred directly and immediately to the participating merchants and vending machines. Electronic

cash is a secure and convenient alternative to paper or coin currency. E- Cash has linked offline and online payments together through the introduction of smart card technology.E-cash operates on a smartcard, which includes an embedded microprocessor chip. The microprocessor chip stores the cash value and has the security features that make e- transactions secure. The e-cash goes through an e-cash bank so that the transaction can be verified. Most E-cash is transferred directly from the customer's desktop to the merchant's site. Therefore, e-cash transactions usually require no remote authorization or personal identification number at the point of sale.

5) **Aadhaar Enabled Payment System (AEPS)**

AePS is a system developed by the National Payments Corporation of India (NPCI) with the help of which people are able to carry out financial transactions on a Micro-ATM just by furnishing their Aadhaar number and verifying it with the help of their fingerprint. There is no limit on transactions and people don't have to mention their bank account details to carry out these transactions The only requirement for carrying out transactions is the linkage of Aadhaar with bank account. It enables Services like Balance Enquiry, Cash deposit, Cash Withdrawal, Aadhaar to Aadhaar Funds Transfer, etc.

6) **National Electronic Fund Transfer (NEFT)**

National Electronic Funds Transfer (NEFT) is a nation-wide payment where funds are transferred electronically from one bank branch to any other bank branch in the country which is participating in the Scheme and these transactions are settled in batches. However, cash remittances will be restricted to a maximum of Rs. 50,000/- per transaction.

7) **Real Time Gross Settlement (RTGS)**

RTGS is an electronic form of funds transfer where the transmission takes place over real time.Real Time means that the processing of instructions is done at the time they are received rather than processing them later; 'Gross Settlement' means that the settlement of funds transfer instructions occurs individually. This system is meant for large value transactions. The minimum amount which can be transferred through RTGS is 2 lakhs and there is no upper ceiling for these transactions.

Challenges in Use of e-Payment

1) Inadequate Digital Literacy: Still a large number of people are illiterate in India who can be a victim of fraud or other malpractices while using digital payment options. This can be due to lack of training to handle various softwares; people don't know the way to make digital payments and the use of debit and credit card. Many Street vendors, shopkeepers don't know how to make use of e-cash and e wallets. Also other digital media like swipe machines are not available to them. People in rural still don't know what Smartphone actually means. For them, it's still a mode of communication only.

2) Increased risk of identity theft: Identity theft is one of the fastest growing crimes in which a criminal obtains key pieces of personal information in order to use it for own personal gain. It is a kind of fraud that results in the loss of personal data, such as passwords, user names, banking information, or credit card numbers. Since we are culturally not accustomed to the digital transactions, even well-educated people run the risk of falling into these phishing traps.

3) High Cash Dependency: Reserve Bank of India (RBI) has recently reported that cash in circulation as a share of GDP is likely return to its pre-demonetization levels. This shows our acute dependency on cash. Also, India is a home to a sizable rural population, a group that often falls into the "underbanked" category, Digital banking infrastructure often doesn't extend to its geographic area, meaning this population's very scope could keep cash in play for a long time to come.

4) Lack of Digital Infrastructure in Rural Area: There are no banks branches in the rural areas. Neither there are any Atms or the swapping machines. Still there are many villages where is no electricity and telecom facility but for making a digital economy, the primary requirement is the penetration of internet and smartphones.Still a large population of India does not have a mobile phone.. According to the latest figures from the Indian telecom regulator (TRAI), India has a tele density of 83%, with Bihar, Assam, Madhya Pradesh and Uttar Pradesh with teledensity of less than 70%. Although there are a billion mobile subscriptions (not users), only 30% of subscribers use smart phones. With 370 million mobile internet users, over 70% of them are in cities while 70% of the Indian population lives in villages.

5) Cross Border Transactions: Cross-border payments are slow, inefficient, and expensive, but they play an important role in global trade. Typically, national banking infrastructures can't handle cross-border payments, resulting in the development of independent and non-uniform technologies and software platforms that further complicate the cross-border transactions. New developments are required to shape up cross-border payment requirements.

6) Multi-currency and payment methods: Accepting payments from a variety of methods and currencies is a prerequisite in global ecommerce. The e-payments such as mobile payments, **e-wallets** and credit/debit cards can help the merchants compete in the international markets by allowing their customers to pay in their native currencies. For merchants, multi-currency transactions and cross-border transactions can require new bank accounts, new business entities, and new regulatory hurdles in each national market. Therefore, selecting a **payment service provider** which can provide the necessary infrastructure already in place can be a big challenge.

Solutions

1) Proper authentication tools must be ensured for all e-payment based products and services. It should be noted that no single security device can adequately protect an e payment system and rather a mixture of security techniques such as PIN, cryptographic key, digital signature, biometrics, etc, should be used to establish multiple layers of authentication.

2) Payment Card Industry Data Security Standards (PCI DSS) certification should be made compulsory for every merchant or business accepting credit or debit cards as this will protect the cardholder data and implement strong access control measures.

3) Digital Signatures must be used by the parties involved in online payments and transactions should use digital signatures in order to ensure authentication.

4) Awareness should be created among masses regarding maintenance of cyber hygiene and regularly updating anti-virus. The use of public Wi-Fi networks should be avoided, which are target-rich for cyber thieves.Passwords should be changed regularly; choose strong password and separate passwords for different sites.

5) Awareness should be created about the ease of usage. The examples of cashless economies like Sweden should be put forward.

References

Peter M Ogedebe, Babatunde Peter Jacob: "E-Payment: Prospects and Challenges in Nigerian Public Sector". International Journal of Modern Engineering Research (IJMER) Vol.2, Issue.5, Sep.-Oct. 2012 pp-3104-3106

Sujith T S, Julie C D: "Opportunities and Challenges of E-Payment System in India." :International Journal of Scientific Research and Management (IJSRM) (2015)

Srihari Kulkarni, Abdul Shahanaz Taj: "Digital Payments: Challenges and Solutions" IOSR Journal of Business and Management (IOSR-JBM)

http://cashlessindia.gov.in

http://www.cybercash.com