



Cashless Transactions- Issues and Solutions

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Abstract: Commercial transactions that are communicated by means of electronic ways are E-Commerce. Electronic commerce refers to technologies such as mobile commerce (M-Commerce), electronic funds transfer (EFT), supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI) and automated data collection systems.

This paper is outcome of review of various research studies on E-Commerce. In this paper different opportunities are studied. It brings overall view of growth of E-commerce in Maharashtra.

This paper highlights various key challenges and opportunities which Maharashtra E-commerce Industry may face because of demonetization of currency.

Keywords- E-commerce, M-commerce, Supply Chain Management, E-Business.

Introduction-

Buying and selling of products by means of internet is known as E-Commerce. E-Payment is a method in which buyer can make online payments without physical transfer of cash and cheques, irrespective of time, date and location. It makes e-payments at any time by means of internet directly to manage the E-Business environment.

In real word there are 2 distinct types of payments system are available –

- 1) There are 4 models of internet based payment system
 - a) E-cash
 - b) Credit Card
 - c) Debit Card
 - d) Smart Cart



2) Electronic Transaction Based Payment System

- a) Secure Electronic Transaction
- b) Cyber Cash

○ **Objectives-**

- To create awareness about Online Payment Methods.
- To motivate people for doing cashless transactions.
- To create awareness about security in E-payments.

○ **Brief review of Literature –**

E-cash –It comes in 2 forms as Dig cash and the other form is off-line; essentially a digitally encoded card that could be used for many of the same transactions as cash.

It is purely software based anonymous online token payment system available on Graphical User Interface platforms Operating systems. When the token purchased by the customer, the E-cash software stores the digital money at any shop accepting E-cash without giving credit card details to the seller.

➤ **Credit Card-**

Credit card is a plastic card issued by bank which has Customer type and card Number with expiry date and billing address on the order form and the vendor can verify the details and confident on payment.

- 1) Payment Using Plain Credit Card Details
- 2) Payment Using Encrypted Credit Card Details
- 3) Payment Using Third Party Verification

➤ **Debit Card-**

It is a banking card that is linked to an individual's bank account allowing funds to be withdrawn at ATM. A cardholder can directly pay through bank for his purchases. In Debit Card System Online debit cards electronic authorization of every transaction is required and the debits are reflected in the user's account immediately. The personal identification number (PIN) authentication system provides additional security to the transactions; some online cards require such authentication for every transaction, essentially becoming enhanced automatic teller machine (ATM) cards.



➤ **Smart Card-**

It is a security token having an embedded chip. It has typically the same size as a driver's license and can be made out of metal or plastic. They connect to a reader either by direct physical contact (also known as chip and dip) or through a short-range wireless connectivity standard such as Near Field Communication (NFC).

➤ **Secure Electronic transactions-**

The system for ensuring the security of financial transactions on the Internet is SET. With SET, an electronic wallet (digital certificate) is given to a user and a transaction is conducted by verifying the combination of digital certificates and digital signatures among the purchaser, a merchant, and the purchaser's bank in a way that ensures privacy and confidentiality.

➤ **Cyber Cash-**

It is a web based service which automatically processes and verifies customer's credit card information then debiting the customer's account and crediting in to the merchant's account.

It acts as a gateway between the merchant internet and bank's secure financial network.

○ **Issues and Solutions regarding Electronic Payment System-**

1. **Lack of usability**

EPS requires large amount of personal information from end user or sometimes transactions are more difficult because of more complex elaborated website interfaces. For Example Credit card payment requires large amount of personal data and contact details in the web form.

2. **Technical Issues**

Today the security issues that threaten Electronic payment systems are changing constantly, and often extremely quickly. The most common threats include viruses, worms and Trojan horses. Viruses are spread via email or by downloading infected files. Viruses are a nuisance threat that can be categorized as a Denial of Service (DoS) tool due to the fact that they only disrupt electronic communications.



3. **Lack of Security**

As customers have to provide personal information along with card numbers and other details, online payment systems are easy target for stealing money and other information.

4. **Lack of Awareness**

Sometimes there may be any technical problems those are not known to customers and thus refuses to do online payments.

5. **Online Payments are not feasible in Rural Areas**

Rural population is not literate and they are also unable to operate computers or Mobiles for making payments.

❖ **Solutions-**

1. Digital Signatures-

The parties involved in Online Payment Systems should use Digital Signatures in order to ensure secured and authenticate transactions.

2. Legal Protection-

As e-commerce activities are a commodity transaction and security issues should be protected by law, must ensure that the legal status of electronic contracts and digital signatures, electronic contracting parties to the contract approved Electronic Contract denied or modified to ensure that electronic contracts can be implemented.

3. Firewalls-

It is an integrated collection of security measures preventing unauthorized access to a networked Computer System.

4. Request more identification in case of doubts-

With Consumers requiring quick web ordering facilities, merchant should call them for verification through phone or request a photo id to be fixed if they have any doubt.



❖ **Conclusions-**

One of the technological innovations in banking, finance and commerce is the Electronic Payments. Online Payments refers to the mode of payments which are really cashless i.e transactions that does not uses physical money .Electronic Payments are faster and easier. Risks and security issues comes with the benefits of Online Payments.. E-payments systems should have reliable and secure methods to authenticate their customers thus reducing the inherent risks. The level of authentication used should be appropriate to the risks associated with them.

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