Security in electronic transaction

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Abstract - *Now a day's electronic transaction has become a common, everyone purchases products over the internet and also pay the bill, which is becoming an easy and everyday necessity, secure methods of payment gateway for such online purchase product have become very important so that its need to protect from unauthorized use. Therefore, here Security for such transaction is necessary because its confidential information such as credit card numbers, pin numbers and other information for that security is required. This research paper review security in electronic transaction using credit card and payment applications which used in mobile like Pay Through Mobile application.*

Key Words: Credit Card, Debit Card, Electronic Transaction, Password, Paytm, Security.

1.INTRODUCTION

The emergence of electronic transaction using mobiles that started in the year 2000 has become very popular and is in demand among people. It is very beneficial and the people can use electronic transaction while making payments at their convenience. Previously the people were using postal mail for conveying their messages among each other which has now been replaced by email which is a method for electronically sending and receiving files over the internet and it is efficient, faster. Similarly banking has now become online banking and Commerce has become an E-Commerce and it is very important to secure the online data from being hacked by any unauthorized users. The electronic transaction has reduced the chance of carrying currency notes and loss of hard earned money and it has other benefits such as convenience in shopping, Payment of bills, saving of time and scheduling of financial transactions which can all be managed from home, office or from anywhere you by using a smart phone.

Electronic transaction payment gateway is an application, which provides the option of electronic payment and credit card payments for online purchase product. This electronic transaction payment gateway facilitates the transfer of information between a portal such as e-commerce website, mobile phone applications. Electronic payment system refers to an electronic device that allows an individual to make electronic commerce transactions, and also to purchase online items. It also facilitates e-wallet where it is linked to an individual's bank a/c. Customers use digital wallets to store payment data, eliminating the need to re-enter information each time when they make a purchase.

To provides the security to the application is important task. security purpose cryptography techniques are used for securing communication over the internet. various protocols are available which protect the data over the network when its transmitted. protocols in cryptography plays a vital role which allows people to communicate securely over the network.

Objective

1) To study the process of electronic transaction is done using mobile application.
2) To study the advantages of electronic transaction.
3) To emphasize the purpose of Security in electronic transaction.

2. LITRATURE REVIEW

There are different research papers which were developed for security in electronic transactions. Literature survey is presented starting with the paper [1] which provides the information about the different protocols which helps to overcome the problem of security.

Then coming to the paper of [2] this paper presented different issues, threats which are occur during the transaction and also gives the solutions to that issue. These are the following security threats which reviewed in my study. Security issues in electronic transaction application.

1) Malicious code:

   • Viruses: The virus have ability to replicate and spread to other files include macro viruses, file infecting viruses, and script viruses.
   • Worms: They are similar to virus but it is designed to spread from computer to computer.
   • Trojan horse: They gives malicious user control over the infected computer.

2) Hacking: It is an attempt to access others computer data without knowing to that person.
3) Credit card fraud: In this user uses the others credit card pin for personal used.
4) Spoofing: In this hacker attempts to gain unauthorized access to computer data by pretending to be authorized user.
5) DOS: It occurs when legitimate user are prevented from accessing resources by hacker. [2]

Then come to next paper [3] this paper represents the information on the secure electronic transaction protocols i.e. SET which gives the information about hashing using SHA, Encryption-Decryption and the gives the information about what are the security enhancement in transaction.

Then come to the next paper [4] this paper represents the information about secure payment gateway. This paper provides the information about how to provides the security. Types of attack done in online transaction and provides solution to that attack
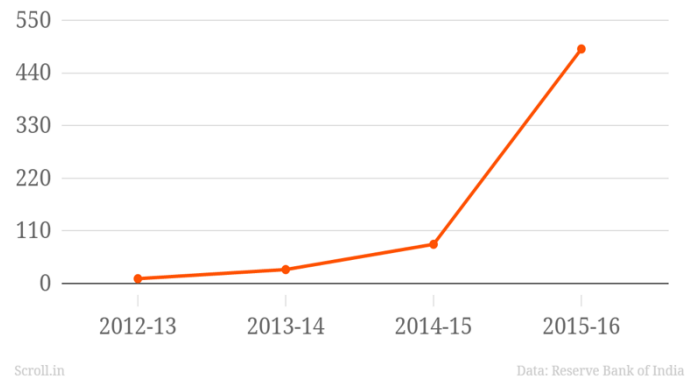

Fig -1: Transaction using mobile wallets.

This above diagram represents the how many transactions done in pass four year. Over the past four years, mobile wallet transactions application has jumped from 10 billion of transactions in 2012-'13 to more than 490 billion in the year 2015-'16 [7].
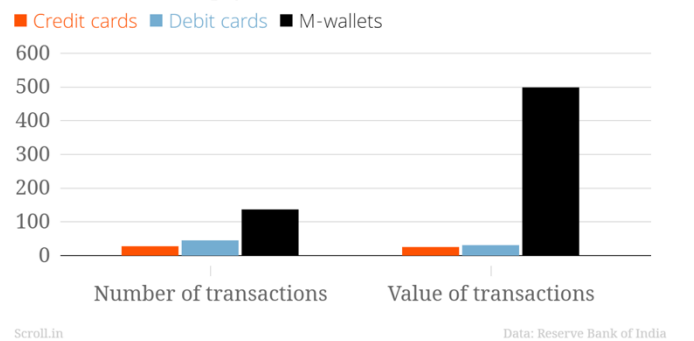

Fig -2: Transaction using credit cards and m-wallet

The above diagram represents the growth of different payment methods. Debit cards saw more than 117 crore transactions during the last financial year and credit cards added another 78 crore transactions in the same period. As compared, mobile wallets managed a healthy 60 crore transactions. [7]

3. METHODOLOGY

It is conceptual paper secondary data like conference journal paper have been reviewed, Various reports have also been reviewed. To understand the electronic transaction security thread & need for secure way of transacting.

4. PROCESS OF ELETRONIC TRANSACATION

The Pay Through Mobile i.e. Paytm is one of the largest application used in India. Paytm is an Indian payment and e-commerce company in India. The application Launched in August 2010.

The Paytm Wallet application provides features to you like air tickets booking and taxis, mobile recharge and DTH, and pay the electricity bills among others, money transfer using the mobile phones Users can also provide facility of online shopping and also buy movie tickets through the wallet.

Following diagrams shows how the paytm application is work when we do online purchasing the product.
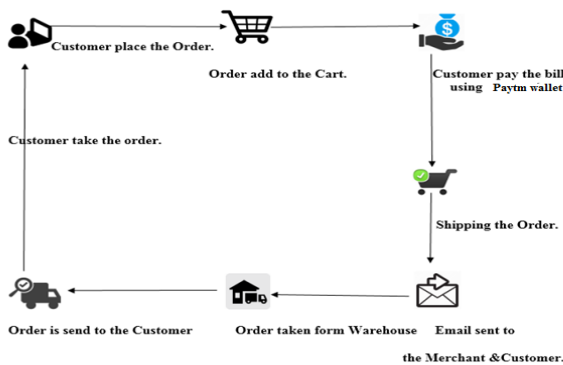

Fig -3: Electronic transaction using Pay Through Mobile application.

Steps are followed in online shopping.

1) Customer place the order.
2) Order is added to the cart.
3) Pay the bill using e-wallet app.
4) Shipping the order.
5) Email is send to customer and merchant.
6) Process the order to customer.

These are the common steps which you need to follow while doing the electronic transaction. Security process is coming in the step 3 when you buying product, but the problem is how to provides the security to applications.

5. ADVANTAGES OF ELECTRONIC TRANSACTION

- You can send and receive payments anywhere in the world.
- It is Easy to use and user friendly.
- It saves your time.
- You can manage your account from mobile phones.
- It provides the facility of email or SMS notifications.
- Complete control of transaction in your hands.
- You can receive or transfer funds directly into your e-wallet application.
- Any bank account is used worldwide.
- Unlimited amount of transaction you can able to do.

6.PURPOSE OF SECUIRTY

Nowadays everyone goes online for shopping because its save your time and with just a few keystrokes & clicks, you can get the products. And it's delivered right to your home.

While buying a product online, security is one of important part to be taken care. The purpose of security is to hide the details of customer and data should be transferred online securely without any third party interrupting.

For security purpose you need to follow some rules so that your data will not get hack by other third party person and intruder should not be able to get access to your confidential data and misuse it for personal used.

7.TIPS FOR SECUIRTY

These are the following tips which you need to be followed for secure transaction. [12]

- Install security software:
  Security purpose you need to install the security software in computer so that it can be protect the data.
- Use encryption signs for the password:
  When you do a login, make sure that the password will get encrypted. When it is transmitted over the network it will not used by anyone.

- Used different password:
  Always used a different password, so it can't be used by anyone if password is known to the other person then change the current password.

- Dealing with offers.

  Be sure when you buying product form E-Commerce site. You might be gets lots of promotional mails from an e-commerce site. But while using such offers, it is advisable to go directly to the seller site. when you enter the details in the link which will be usually sent by third parties.

- Avoid public computers.

  For financial transaction always used the personal computer. Never use any public computers.

- Avoid public WI-FI.

  Make sure that you always connect to the internet using a secured Wi-Fi connection which is password protected. Doing financial transactions over a public Wi-Fi connection is highly unsafe may your data may get hacked by other user.

- Buy the product form reputed sites.

  Always buy a product from reputed site make sure that your security is not compromised. Also check the confirmation Email once you complete the electronic transaction.

8. CONCLUSIONS

A brief explanation about the electronic transaction is explained. The advantages of electronic transaction using mobile phones has been discussed and also gives some tips for security. With the help of security tips you can able to protect your data.

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