Imperative & challenges of mobile banking in India

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Abstract- **As mobile is new technology in financial and banking sector. This technology help us to save our time and provide facilities to get the information about our account, transaction and transfer the money from one account to another account from anywhere and anytime but there is problem in customer adoption, customer distrust on the mobile banking security. This is a big problem in front of mobile banking. So first of all we have to make trust on the customer by increasing security in mobile banking services and make it user friendly due to which user can use it in an easy way. The main objective of this paper is to disuse about mobile banking, advantage and benefit of mobile banking and security issues & challenge in mobile banking and get solution of mobile banking security.**

Keyword: Mobile Banking, issues & challenges, benefit, mitigation of issues.

I   Introduction

Mobile phone is a new technology in financial and banking sector which helps customer to enjoy the banking facility on mobile like account information, transaction, transfer money from one account to another account and other banking facilities are available in our mobile phone so mobile banking not only help to save our time but it also give the facility to access the bank account from anywhere and anytime but in mobile banking there is some security issues due to this customers are don't like to use mobile banking because they don't trust on mobile banking facility and security. Some banks are use third party to security services but we can't trust on the third party because they may steal our data. So to make mobile banking secure is first challenge for us to improve mobile banking security and make trust among the customer and second problem is to make it user friendly by which user can understand and use it easily by improving all these facilities barrier on adoption of the mobile banking can be overcome. Mobile banking is not only for get information about account, transaction but it also helps in payment of bill, shopping and in other financial system mobile banking is also useful mobile banking is also known by mobile payment so adopting mobile banking is beneficial for us to improve its facilities we have to mainly focus on two point first one is security, privacy and trust on mobile banking because customer due to the lack of security and unaware about mobile banking technique they not want to use it in financial system because they not trust and feel risk on mobile banking so we have to make secure and make trust on customer. Second one is make it user friendly means make it easy to use by which any customer can use it easy without any training they can use it easy and trustfully.

II   Mobile Banking

Mobile banking is a service which provides the banking facilities with help of mobile phone. It helps us to know about our account information with the help of SMS. Mobile banking not only give the account information but it provide transaction and payment facilities also such as bill payment and shopping payment and other bank services also can be provide with the help of mobile banking so mobile banking is very useful for us and provide all facilities from anywhere and anytime time with the help of mobile baking.

According to the mobile banking services it can be divide on two types first one is SMS banking, SMS banking refers to provide the account information through the SMS whenever you use transaction from your account it alert you about your transaction whenever you transact from your account with your ATM or at the transaction at the shopping time it will alert you via SMS this facilities help us with any unauthorized transaction and alert about transact amount, time and place of transaction which helps to detect the unauthorized transaction. Second one is Application based banking this is refers to provide the banking facility via mobile with the help of mobile application this facilities are available in smart mobile phone by downloading application of banking services we can use it. It provides to access and manage our account with the help of mobile banking. So according to above classification we can say that mobile banking provide banking services in two way first one is SMS facility and application services[1].

III   Advantage & Benefit of mobile banking

In mobile banking with help of SMS alert it improve the customer services. With the help of SMS whenever owner purchases or transact any amount from account bank inform to owner each and every time with the help of SMS facility it will also help in credit card fraud. Similarly customer can request for other facilities like mini statement, deposit, and withdrawals information can be getting with the help of SMS information. Bank also remind some other information by SMS like loan related information date and time of installment other offers alert sent by the bank to customer to improve the customer services. And through the mobile payment we can use it to payment for any billing and for the purchase any goods and services with the help of mobile payment system so mobile banking help to improve banking services we can access our account information and can use for payment and money transfer without visiting bank and without wastage of time in bank we can use these services at home on our mobile phone at anytime and anywhere so mobile banking not only save our time but gives the services anytime in a easy way[2].

IV   Challenges and issues in mobile banking

A. Customer awareness:
Due to lack of knowledge and awareness about mobile banking is also a reason for distrust in mobile banking services and it is also another reason for risk and security issue in mobile banking because this is new technology in banking and financial system so all banking customer are not aware about it and feel risk to adopt it so it is also a big challenge in front of mobile banking services in India[3].

B. Security issues & privacy:
there is security of mobile banking services is big issue and challenge. In mobile banking for the security purpose PIN or PASSWORD is used which may be steal by the attacker or unauthorized user if mobile device has loss or steal so user have to aware about it. Customers are use sensitive data and information in mobile so here risk with pass of a legitimate application because application services are provided by third party it may steal our information and send it to another third party so we have to aware about application used for WAP mobile banking services and download a legitimate and authorize application for transaction with mobile banking services.

C. Virus & malware attack:

there is also risk with virus and malware attack it may access your account information such as username, password and other information like in computer system there is also risk on virus and malware attack on mobile banking services some malicious code are written to defect mobile banking like Zeus has used for attack on SMS banking and Zeus used for steal mobile transaction authentication such as password and pin number. So it is also big security issue and challenge in mobile banking services.

D. Wireless network:

All process of mobile banking services is done in wireless mode so there is also a security risk in mobile banking services mobile device component contact with cell site and dedicated circuit or microwave for the communication services so if there is any weakness in any part of this network then risk of attack is increases so we have to secure all these network and network devices for a good security services.

E. Risk in SMS mobile banking:

Format of SMS is in plain text. Currently end to end encryption is not available. The only encryption is available in base station at transceiver and at the SMS server during transmission time. Due to this there is risk in SMS banking such as SMS spoofing attack where attacker can send message on network by manipulating the user's number.

F. Authentication issue:

In mobile banking there is authentication risk at the login time or when we access our account through the mobile system because in mobile banking for the authentication PINS numbers are used but PINS authentication method is an old method and many security issues such as password and id theft were by stealing the password and id unauthorized access may be possible by getting the password attacker may access our account.

Another risk related to authentication in mobile banking as if mobile has stolen then attacker may get the password through the mobile and can access the account by using your id and password.

V   Mitigation and solution of issues

There is some solution and suggestion for related issues by which we can overcome the challenges and risk in mobile banking field

A. Customer education and awareness:

Because mobile technology is new in banking and financial sector so all users and customer are not aware about it so they distrust on mobile banking and feel security risk in mobile banking so it is also a challenge for us for overcome these issues and challenges we have to educate and aware about mobile banking to customer[4].

B. Privacy issues:

For the privacy related issue we have to aware about mobile banking and its security means users must have to aware and knowledge about mobile banking system and its security. Another solution for the privacy related issue is that applications are downloading from a reputable website and sure about that these applications are tested for security. Because these application services are provided by third party and they can steal your data and information from your mobile device or at the time of transaction process.

Wireless network: mobile banking system using a wireless infrastructure for the process of transaction, transfer and other banking process so due to lack of security there may be a risk on the customer services so we have to provide a

high infrastructure and good security for the banking process because in these wireless infrastructure highly sensitive data and information are travelled.

C. Trust:

Making trust in customer is a challenge for us so for it we have to improve well secured services by which user feel secure his data and information and can use mobile banking services without any risk. Another thing also for making trust in customer they are not aware about these services so we have to aware and educate to user for banking services and its security and some basic things which help them to secure his privacy and use a secure services without any risk.

VI   Conclusion:

As mobile phone technology is a growing technology in banking, finance and commerce sector by which we can save our time and can access our account and information of our account from anywhere and anytime and it also keeps alert us with our account transaction and with other necessary information. But there is some security related risk and challenges may come to overcome these risk and challenges we have to improve our security system and improve the authentication system for secure services and make trust in customer to use of mobile banking services and can remove barrier in adoption of mobile banking services

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