

**E-Banking Services and Mobile Phone Banking – A Focus**

**\* Dr.C.Sureshkumar**

**\*\* A.Vennila**

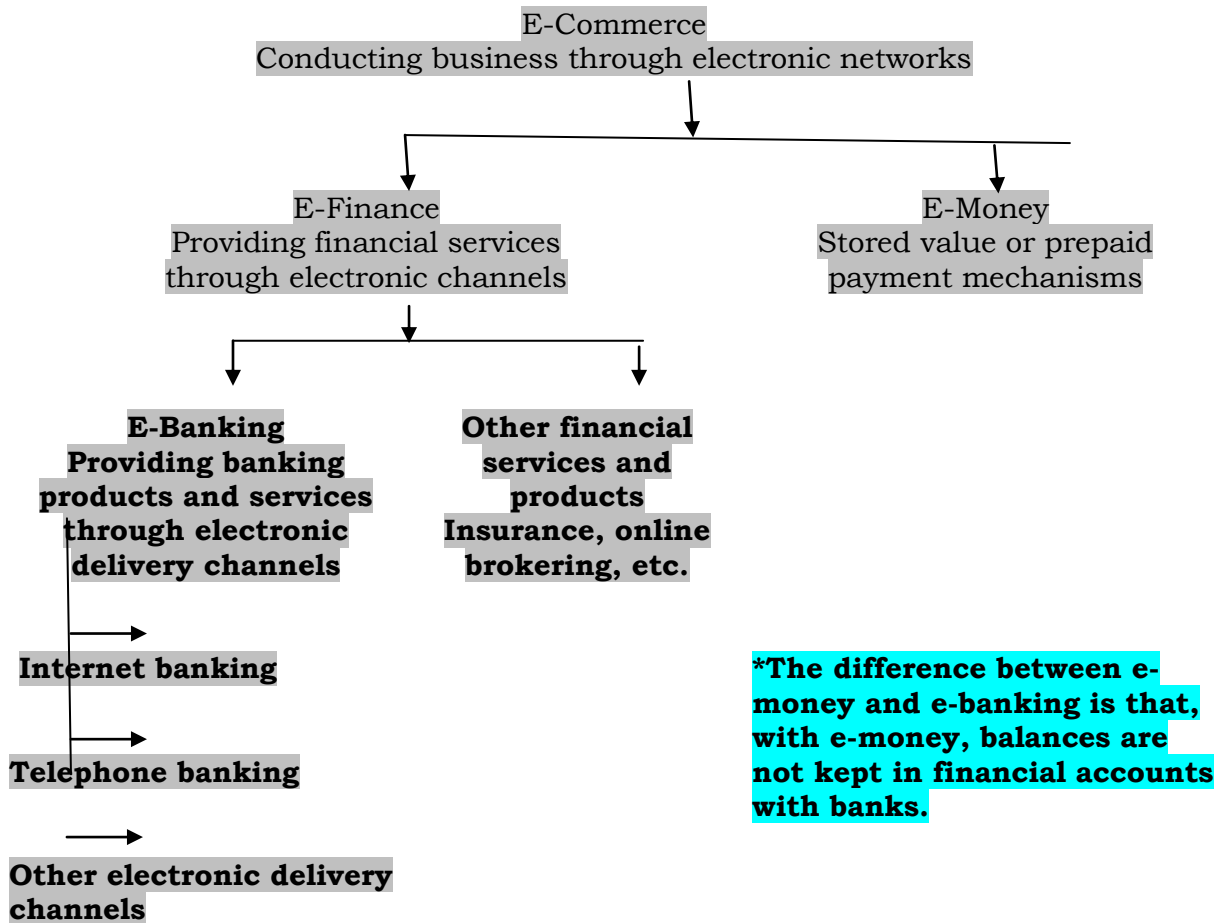
\* Guide, Head of the Department of Commerce, S.K.S.S. Arts College,  
Thiruppanandal-612504

\*\* Part time Ph.D. Research Scholar, Department of Commerce, S.K.S.S. Arts  
College, Thiruppanandal-612504

E-banking is changing the banking industry, having the major effects on banking relationships. Banking is now no longer confined to the branches where one has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts. In true E-banking, any enquiry or transaction is processed online without any reference to the branch (anywhere banking) at any time. Providing E-banking is increasingly becoming a “need to have” than a “nice to have” service. The exception in many developed countries due to the fact that it is the cheaper way to providing banking services. Mobile phone banking may be described as the newest channel in e-banking to provide a convenient way of performing banking transaction using mobile phones or other mobile devices.

This research paper will introduce you to e-banking, giving the meaning, E-banking Services and E-banking in India. It will also discuss the Mobile Phone Banking.

**Keywords:** E-banking, E-banking services and Mobile Phone Banking E-Banking - Chart



## **I. Introduction**

Internet banking (E-banking) means any user with a personal computer and a browser can get connected to his bank's website to perform any of the virtual banking functions. In internet banking system the bank has a centralized database that is web-enabled. All the services that the bank has permitted on the internet are displayed in menu. Once the branch offices of bank are interconnected through terrestrial or satellite links, there would be no physical identify for any branch. It would be borderless entity permitting anytime, anywhere and anyhow banking.

E-banking refers to electronic banking, wherein the entire operations are done by the customer through his computer system by using a code. It maintains secrecy of transactions. The customer will be instructing the banker through the computer with regard to transfer, investment and repayment of loans or appropriation of different payments. By this, the use of cheques is very much minimized and the customer will be able to contact the banker or his particular branch from any part of the world, even when he is flying or on a sea voyage.

E-banking provides enormous benefits to consumers in terms of ease and cost of transactions, either through Internet, Telephone or other electronic delivery. E-banking has improved the customer service. In India, it is likely to pick-up during the later half of the year 2001. Off-shore banking becomes much more easy by e-banking.

## **II. Meaning of E-Banking**

E-banking is nothing but electronic banking, wherein most of the operations of the bank are carried out through the electronic media. Even the traditional functions like accepting deposits and granting of loans are done through the electronic media. It provides the financial service for the individual client by means of internet.

## **III. E-Banking in India**

After the economic liberalization, there has been a considerable change in the banking operations in India. Indian banks were forced to change their approach towards their customers in view of the competition from multinational banks. The government had realized this and brought in sweeping changes in the banking operations. Initially, there was resistance from the bank employees for switching over to the computer system. But after experiencing the system, their resistances mellowed down and we find in many Indian banks computers have become a part of their operations. In India, only in metropolitan cities and big towns, banks are using the electronic media for their transactions. Having tasted their benefits, they are slowly extending the electronic network to their rural branches. Employment opportunities have increased both in the banking and other sectors by the use of electronic banking. Thus, we can say that E-banking in India has done a lot of good to the banking industry and the emergence of Merchant Bankers is an outcome of e-banking.

**IV. E-BANKING SERVICES**

Service code	E-banking services	Definition
1	Balance enquiry and statement	Check out transaction in bank account with a real time balance.
2	Transaction history	Check out past transaction from the date of account opening.
3	Online transfer of funds	Transfer of funds to any bank account of that particular bank or any other bank.
4	Card to Card fund transfer	Transfer of funds having visa, debit cardholders or credit card holders.
5	Pre paid mobile recharge	Recharge pre-paid mobile online anywhere, anytime in a few minutes.
6	Buy and Sell mutual fund	Online buying and selling of mutual fund.
7	Send money order any time	Get it door delivered to any destination in India.
8	Open Fixed deposit and Recurring deposit	Apply online to fixed deposit and recurring deposit.
9	Request of Cheque book	The cheque is delivered on the address upon request.
10	Stop payment request	Issue instructions to stop payment of a particular cheque
11	Request of Debit cards	Apply online ATM/Debit card.
12	Monthly Bank account statement by E-mail	Free statement of bank account on e-mail address
13	Reissue and upgrade of ATM/Debit Card	Get ATM/Debit card reissue or upgrade current ATM/Debit Card
14	Link bank account to ATM/Debit Card	Link multiple bank accounts to a single ATM/Debit Card.
15	Renewal / premature closure of FD/RD	Renew current FD account or request its Premature closure.
16	Deactivate /Activate ATM/Debit Card	Activate / deactivate ATM / Debit Card.
17	Change Password	Change of log-in password and transaction password.
18	Demat holding	Provide to demat account details and transactions.
19	Loan Details	View details related to loan account like type of loan, date of sanction, date of maturity, rate of interest.
20	Interest rate updates	Know rate of interest on deposit and loan scheme.
21	Ticket Booking	Booking of railway or air or bus ticket online
22	Online shopping	Pay e-shopping bills through internet banking.
23	Bills payment	Paying of bills utility (electricity and telephone), bank credit, mobile bills and insurance premium
24	Mobile Top-up	Recharge pre aid mobile anytime, anywhere by log in to internet banking.

<b>25</b>	Share Trading	Trade in security market online, through the unique three-in-one account that integrate banking, broking and demat account.
<b>26</b>	Online Tax payment	Online payment of service tax, income tax, central excise duty
<b>27</b>	Convert to EMI	Converting any transaction above Rs.2,000 on a credit card into easy EMI. EMI repayment are easiest and provide tenure ranging between 3 to 24 months.
<b>28</b>	Online Loans	Get loans as fast as you click.
<b>29</b>	Customer Correspondence	E-mail correspondence between customer and bank for transaction queries.
<b>30</b>	Demonstration of E-banking	Provide demonstration of electronic banking services on banks website.
<b>31</b>	Corporate E-banking	Internet banking service to corporate customers

### **Mobile Phone Banking**

#### **A) Meaning**

The unprecedented growth in the number of mobile phone users has enabled banks to transform mobile phones into an easy and convenient channel to a alert or inform promptly of the significant transactions, and keep the customer updated. The facility can be used for Account Information, Balance enquiries, Funds transfer, Utility Bills payments, and Small Value payments. The transactions can be conducted with ease through a secure and convenient process.

Mobile phone banking may be described as the newest channel in electronic banking to provide a convenient way of performing banking transaction using mobile phones or other mobile devices. The potential for mobile banking may be far greater than typical desktop access, as there are several times more mobile phone users than online PC users. Increasingly “mobile life style” may also fuel the growth of anywhere, anytime applications.

The noteworthy milestone was the introduction of mobile banking primarily through SMS. The launch of smart phones created a revolution of sorts in the banking world and smart phones are now a widely accepted delivery channel in developed countries. As the number of mobile phone users in India rapidly increases. Banks are exploring the feasibility of using the ubiquitous device as an alternative channel for delivery of full-fledged banking services.

#### **B) Mobile Banking Transactions in India: [Operative Guidelines for Banks issued by RBI (October 2008)]**

Mobile phones as a medium for extending banking services have achieved greater significance. In order to ensure safety in adoption the relatively new technology. RBI has issued a set of operating guidelines for banks. Only banks, which are licenced and supervised in India and have a physical presence in India, will be permitted to offer mobile banking services.

- The services shall be restricted only to customers of banks and / or holders of debit / credit cards issued as per the extant RBI guidelines.

- Only Indian Rupee-based domestic services shall be provided. Use of mobile phone banking services for cross-border inward and outward transfers is strictly prohibited
- The guidelines issued by RBI on “Know Your Customer (KYC)”, “Anti Money Laundering (AML)” would be applicable to mobile-based banking services also.
- Registration of Customers for Mobile service is necessary.
- Technology used for mobile banking must be secure and should ensure confidentiality, integrity, authenticity and non-responsibility
- To meet the objective of a nation-wide mobile phone banking framework, facilitating inter-bank settlement, a robust clearing and settlement infrastructure operating on a 24x7 basis would be necessary
- For the present, banks are permitted to offer this facility to their customers subject to daily cap of Rs.5000/- per customer for funds transfer and Rs.10,000/- per customer for transaction involving purchase of goods/services
- Approval of Board of Directors of the Bank must be obtained. Banks wishing to provide mobile phone banking services shall seek approval of RBI

### **C) Salient Features of Mobile Phone Banking**

- ❖ Cash received through mobile transfers can be withdrawn from ATMs
- ❖ In other words, Banks offer a unique mobile phone banking platform on the mobile phone, to do all transactions, which are usually done by internet-banking
- ❖ The customer, who is offered the mobile phone banking facility, should be a sole account holder or authorized to act independently
- ❖ Instructions effected only after authentication of the customer by verification of TPIN or Password or any other identification stipulated by the Bank.
- ❖ All major banks in India are now also entering into tie-ups with companies, facilitating payments through the mobile phone. M-payments operate on a very simple mechanism globally. The details of the credit or debit card get stored onto the user’s phone, following which transactions are completed by an SMS.
- ❖ So, when a user wants to pay using his mobile phone, all he needs to do is share his mobile number with the merchant. Instantly, he receives an SMS (with the merchant’s name and amount) asking him to authorize the payment. The customer can do this by confirming the alphanumeric code sent to him, as well as the amount. Within a few seconds, the bank concerned will authenticate the details and debit the amount. However, obviously, the merchant will also have to be part of the system.
- ❖ Considering that less than half of the mobile phone users have high-end handsets, companies are trying to encrypt card details onto SIM cards to target people using even the entry-level handsets. Those with sophisticated handsets can download software to facilitate the process.
- ❖ Apart from the convenience of using a mobile phone to make small value payments, this process also reduces the chances of credit card funds, as the card details are not shared with the merchants.
- ❖ Further, mobile phone banking can be looked upon as an enabler to reach out to the unbanked, keeping in mind its low cost extent of reach.

**D) Services Available in Mobile Phone Banking**

<b>Sl. No.</b>	<b>Mobile Phone Services</b>	<b>Definition</b>
1.	Account Balance	Get information of updated balance without using internet or phone banking.
2.	Making Payment	Make payment of all bills via mobile banking.
3.	Details of credit card balance	Knowing the credit card balance without making a phone call or logging on the internet
4.	Loan Information	Mobile banking for loans avails for loan documents via mobile.
5.	I-Mobile	All internet-banking transactions can be done on mobile phone.
6.	Purchase and Redemption of Mutual Fund units	Buying, selling and redemption of mutual fund units
7.	Last three transactions	One can check the balance of last three transactions.

**E) Hurdle in Development of Mobile Phone Banking**

The main hurdle in development of mobile banking is low consumer adoption due to a number of factors discussed below:

✱ **Internet Connectivity Costs**

Although connection costs from mobile phones is steadily declining it is still high enough in many countries to deter customers from using their mobiles for applications such as e-banking.

✱ **Difficult User Interface**

Human Computer Interface (HCI) issues are a key factor in mobile technology acceptance. HCI includes the use and context of computers, human characteristics, computer systems and interface architecture, and the development process. A general rule is that the easier and more adoptable the interface, the greater is the user acceptance. HCI issues in mobile working are different in the mobile working context than in the traditional office environment. Kristoffersen(1999) identifies three key elements that define mobile work contexts and explain how they differ from the office setting:

- ✓ Users’ hands are often used to manipulate physical objects, as opposed to users in the traditional office setting. Whose hands are safely and ergonomically placed on the keyboard
- ✓ Users may be involved in tasks (“outside the computer”) that demand a high level of visual attention (to avoid danger as well as monitor progress), as opposed to the traditional office setting where a large degree of visual attention is usually directed at the computer.
- ✓ Attention span of a mobile device user is much shorter than a desktop computer user so design of mobile systems interfaces need to be much simpler with very limited amounts of text. Systems navigation needs to be very easy too.
- ✓ Methods to ease the burden of input and spread the requirements of processing output over all the human sense, while still maintaining data integrity are of importance (York & Pendharkar, 2004).



- ✓ Speech and handwriting recognition include minimal user attention input. The benefits of speech recognition include minimal user attention input, direct system entry, rename microphone capabilities, and faster speed of operation compared to other competing input methods (York & Pendharkar, 2004). These technologies need to be incorporated into mobile devices to improve the user's interface.

✱ **Lack of awareness amongst customers**

Many banking customers are not even aware of availability of mobile banking or associated benefits. As with other technologies, awareness increases with time and needs considerable promotional efforts.

✱ **Limitations in functionality of mobile devices**

Mobile technologies are still dogged by limitations such as limited battery life, unreliable network connections, volatile access points, risk of data loss, portability, and location discovery. Even in the developed worlds, until recently, wireless communications were very limited with regards to functionality of devices and speed of communications. Constraints such as screen size, memory, and storage capabilities as well as data transfer rates averaging 14.4 Kilo Bytes Per Second (KBPS), limited the amount of data that could be both displayed and accessed. These limitations are still one of the biggest barriers to the adoption of mobile working in many countries.

✱ **Accessibility issues**

High-speed public Internet access is offering opportunities to get and stay connected in more locations. Today, hotels that cater to business travelers frequently offer in-room high-speed Internet access. As these high-speed access networks ramp up, mobile applications are growing in popularity (Phifer, 2004). It may take several years to reach that 'always connected' goal, and connectivity in less populous areas will lag behind high tech corridors.

✱ **Security concerns**

Mobile technology still suffers from questionable security. So it may not be suitable for transfer of highly confidential financial information. Mobile devices are increasingly becoming a target for virus writers, hackers, and short message service (SMS) spammers. Accordingly to Tower Group's research, over 200 mobile phone viruses have been identified since phones have been able to support PC-like applications such as email, instant messaging and Web browsing, and the number is doubling every six months (Blau, 2007). The resulting disruption of service and data theft can cause many problems for consumers, including lost revenues and customer dissatisfaction for mobile operators. However, the greatest loss may be absorbed by banks providing mobile access, as in almost all cases of fraud banks suffers from the losses. This factor may be making many banks hesitant in providing mobile banking. To be successful in mobile banking the industry must develop an ability to effectively contain the malware problems to a level that is at least on par with that of the existing Internet channels.

✱ **Organizational changes**

To offer mobile banking many organizations will need to change their business processes, ways in which information is provided and accessed, working practices and work relationships, working styles and most important of all, changes in roles, responsibilities and management structures. It may be a manageable task in some organizations but a very difficult one in others.

✱ **Small number of choices (only a few banks offer mobile banking)**

There are a bewildering number of options when it comes to providing mobile banking. It is possible to spend anything from a few thousand to several millions of pounds on any combination of mobile hardware, software and networks without realizing many benefits. With falling prices of mobile technology, one may perceive that mobile working is cheap to implement. However, it is important to remember that technology costs are only a small proportion of the likely total costs. As a rule of thumb, these costs account for 30% of a typical mobile project, with the remaining 70% including items such as training, maintenance, security, management and integration. This implies that the real cost of mobile working could be much greater than promised savings (York & Pendharkar, 2004).

✱ **Technology overload**

The proliferation of personal information devices such as home computers. Mobile phones and digital organizers, coupled with the rise of new media such as e-mail and the World Wide Web, have forever altered the way in which information consumers' work and play. These fragmented information channels often result in inefficient working patterns as users switch from device to device and between different media (Evans, 2004) which may result in mobile savvy customers unable to use their devices for day-to-day tasks such as e-banking.

**Conclusion:**

E-banking and mobile banking is a borderless entity permitting anything, anywhere and anyhow banking. These facilities us with all the functions and many advantages as compared to traditional banking services. During this step of the process, controls that could mitigate or eliminate the identifies risks, as appropriate to the organisation's operations, are provided. The goal of the recommended controls is to reduce the level of risk to the IT system and its data to an acceptable level. Banks would do well to realize their central role in enabling this transformation and should take conscious recourse to relentless adoption of technology. In addition, the goal should be not just to satisfy but also to engage with customers and enrich their experience.

**References**

1. Arunajatesan. S & Radhakrishnan. S (2009). Bank Management, Margham Publications
2. Santhanam. B (2012). Banking Theory, Law & Practice, Margham Publications
3. Joginder Singh Cheema & Rachhpal Singh (2010). E-Commerce Management, Kalyani Publishers



4. Krishnamoorthy, V. and Srinivasan. R (2013), Internet Banking as a tool for Customer Relationship Management – A study on Customer Perspective, Indian Journal of Research, Vplume 2, Issue 2, pp 187-190
5. Retrieved on January 13<sup>th</sup>, 2011 from <http://www.articlesbase.com/banking-articles/online-banking-provides-satisfaction-and-convenience-for-users-505412.html>
6. Gupta. V (2002). Overview of E-banking, E-banking: A Global Perspective Bankers
7. Marlin. S (2005). Banking for the 21<sup>st</sup> century, Bank System and Technology, July 1
8. Mishra. A.K. (2005). 'Internet Banking in India, Part – I', [www.banknetindia.com](http://www.banknetindia.com)
9. Bank for International Settlements (2003a). Management and supervision of cross border electronic banking activities
10. Dr. Radha.V (2012). Banking Theory, Law and Practice. Prasanna Publisher & Distributors
11. [www.rbi.org.in](http://www.rbi.org.in)
12. [www.infosecisland.com](http://www.infosecisland.com)
13. Various RBI issues