

## **Research Paper**

# **COMMERCE**

# **Emerging Trends in E-Banking and Cyber Security**

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### **ABSTRACT**

E-Banking is an indispensable sector of banking industry. It has brought revolutionary changes in many countries. E-Banking is an outcome of the information and communication field development. It uses computer and electronic technology in place of cheques and other paper transactions. It is initiated through devices like cards or codes that

enable one to authorize or access their account. It is the ability to review the balance and any account transaction from any place with the aid of Internet.

This article concentrates on the procedure of enrolling in Internet banking, what should be done and what not, the features, its merits and demerits, various methods of Internet fund transfer. There are various types and various services provided by web banking. It is now considered the quickest medium of any money transaction. But is online banking safe and secured? What are the tips to be protected are all dealt in this article.

KEYWORDS: Meaning, Procedure, Features of online banking, Methods of E- Banking, Banking services, Tips to be secured

### INTRODUCTION

Online banking is an electronic payment system that enables customers of a financial institution to conduct financial transactions on a website operated by the institution. Online banking is also referred as Internet banking, E- banking, virtual banking, Electronic Fund Transfer. It is used to

- Have our pay cheque directly deposited in our account.
- Withdraw money from ATM at any time for our convenience.
- Instruct our bank or financial institution to auto pay certain amounts like house rent, policy premium etc.
- Purchase of anything like groceries, clothing, food etc.

#### **MEANING**

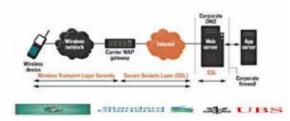
E- Banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution. Therefore transactions taking place through electronic mean and medium is called Electronic banking.

### **PROCEDURE**

To access a financial institution's online banking facility, a customer with internet access would need to register with institution for the service, and set up password for customer verification. Financial institutions now routinely allocate customer numbers, whether or not customers have indicated an intention to access their online banking facility. Customers' numbers are normally not the same as account numbers, because a number of customer accounts can be linked to the one customer number. Customer's number will also not be the same as any debit or credit card issued by the financial institution to the customer.

To access any customary banking, a customer would go to the financial institution's secured website and enter the online banking facility using the customer number and password previously set up. Some financial institutions and banks have set up additional security steps for access to online banking, but there is no consistency to the approach adopted.

### Wireless banking



### **FEATURES**

E- Banking facilities offered by various institutions have many features and capabilities in common, but also have some that are application specific. The features fall into several categories:

 A bank customer can perform non-transactional tasks through online banking including-

View account balances, recent transactions, images of paid cheques. Downloading bank statements, periodic account statements, applications for M- Banking, etc.

Ordering cheque books etc.

- Customers can transact banking tasks including-Fund transfer between the customers's linked accounts.
  Paying third parties including bill pay.
  Credit card applications
- Management of multiple users having varying levels of authority.
- Transaction approval process.
- Support account aggregation to allow the customers to monitor all of their accounts in one place.
- Financial institution administration.

### **METHODS OF E-BANKING**

There are three major methods of it. They are:

- Telephone banking
- Internet banking
- Mobile banking

#### **TELEPHONE BANKING**

Telephone banking is a service provided by the financial institution to perform financial transactions over telephone without the need to visit a bank branch or an ATM. Tele banking duration could be long than the branch office timings, and some institutions provide even 24 hour service. From the bank's point of view, Tele banking reduces the customers' pain of walking in an office for non-cash withdrawal and deposit transactions.

### **INTERNET BANKING**

Online banking or Internet banking allows the customers to perform transactions through a secured website operated by the institution, which can be retail or virtual bank, credit union or society. It may include any transaction of online usage. For this, customer must have registered with the institution for the service with a password set up for customer verification.

### **MOBILE BANKING**

Mobile banking also known as M-Banking is a term used for performing balance checks, accounts transactions, payments, credit applica-

tion, and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). SMS banking is also included in mobile banking permitting customers to operate selected banking services over their mobile phones using SMS messaging.

#### **BANKING SERVICES**

**Automated Teller Machines (ATMs)** also called 24-hour tellers are electronic terminals, which give consumers the opportunity to bank at almost any time. To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number. Some ATMs charge a usage fee for this service, with a higher fee for consumers who do not have an account at their institution. If a fee is charged, it must be revealed on the terminal screen or on a sign next to the screen.

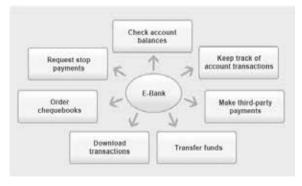
**Direct Deposit and Withdrawal Services** allow consumers to authorize specific deposits, such as paychecks or social security checks, to their accounts on a regular basis. It is also possible to authorize the bank, for a fee, to withdraw funds from your account to pay your recurring bills, such as mortgage payment, installment loan payments, insurance premiums and utility bills.

Pay by Phone Systems let consumers phone their financial institutions with instructions to pay certain bills or to transfer funds between accounts.

**Point-of-Sale Transfer Terminals** allow consumers to pay for retail purchase with a **check card**, a new name for debit card. This card looks like a credit card but with a significant difference—the money for the purchase is transferred immediately from your account to the store's account. You no longer have the benefit of the credit card

"float", that is the time between the purchase transactions and when you pay the credit card bill. With immediate transfer of funds at the point-of-sale, it is easy to overdraw your checking account and incur additional charges unless you keep careful watch on spending.

**Personal Computer Banking Services** offer consumers the convenience of conducting many banking transactions electronically using a personal computer. Consumers can view their account balances, request transfers between accounts and pay bills electronically from home.



### **ADVANTAGES**

- Saves time and money
- Easy to get an overview of one's financial situation
- Round the clock access
- Access from anywhere
- All related services are online
- The cost per unit service is lower for the banks
- It offers convenience for the customers, as they are not required to go the banking premises
- Customers can obtain funds at any time from ATMs.
- The credit cards and debit cards allow the customers to obtain discount from the retail outlets.
- Customers can easily transfer the funds from place to another electronically.

#### **DISADVANTAGES**



- A need for customer skill to deal with computers.
- Many persons who are not comfortable to use computer and browsers often find it difficult.
- For beginners, internet banking is time consuming
- Clicking any wrong button may create a big problem
- Security risk.
- Increasing number of fraudulent websites.
- Fake mails purporting to be sent from banks

#### Cyber security in E- Banking:

Cyber security experts expect the trend toward increasingly sophisticated cyber-attacks to continue in the near future. And the financial services industry, a vital component of the nation's critical infrastructure, remains a prime target for cyber criminals.

Cyber risks, like reputational and financial risks, have the ability to affect a bank's bottom line. It can be costly, compromising to customer confidence, and, in some cases, the bank could be held legally responsible. Beyond the impact to an individual bank, cyber risks have far-reaching economic consequences. Due to the inherent interconnectedness of the Internet, a security breach at a few financial institutions can pose a significant threat to market confidence and the nation's financial stability.

This reinforces the notion that safeguarding against cyber security threats is not a problem that can be addressed by any one bank. To adequately deal with the persistent threat of cyber-attacks, financial institutions and bank regulators must come together, collaborate, and identify potential weaknesses, and share industry standards and best practices.

The goal of this document is to provide you, the bank CEO, with a non-technical, easy to-read resource on cyber security that you may use as a guide to mitigate cyber security risks at your bank. This resource guide puts in one document industry recognized standards for cyber security, best practices currently used within the financial services industry, and an organizational approach used by the National Institute of Standards and Technology (NIST). While this resource guide is tailored for the community bank CEO and executive staff, all bank CEOs can benefit from this guide regardless of a bank's cyber security inherent risk.

While this resource guide does not guarantee protection against cyber security threats, it attempts to identify various resources—including people, processes, tools and technologies—that financial institutions can use to reduce the potential of a possible cyber-attack.

Cyber security 101 is organized according to the five core cyber security functions of the NIST's Cyber security Framework. These five functions provide organization and structure to the help your bank navigate its way to better protection against cyber threats.

### **TIPS TO BE SECURED**

- Should not disclose their customer IDs or passwords to anyone.
- Should periodically change the password.
- Should promptly log out from the service
- Should regularly check their balance
- Should regularly check the statements to identify unusual transactions
- Should not give your account details over phone in any case
- In case of any illegal transaction make an immediate intimation to the concern financial institution.



### CONCLUSION

The strategy of bank is to provide value added services to the customers, utilizing Internet extensively. Main aim of e-banking is to make transactions through online and make customer more beneficial. Internet banking is the change in the banking industry has more effects on banking relationship. It is more of a norm than an exception in many developed countries due to the fact that it is economical way of providing banking services. Providing internet banking is increasingly becoming a 'need to have' rather than a 'nice to have' services.