# UNIT 6 E-BANKING

**Structure**



## 6.0 OBJECTIVES

After studying this unit, you should be able to:

- to explain the meaning of E-Banking;
- to distinguish between the commonly used tools for Electronic Fund Transfer;
- to discuss the need for technology in banking; and
- to understand and appreciate the various technology led developments in the Banking Industry.

## 6.1 INTRODUCTION

Electronic banking is a form of banking in which funds are transferred through an exchange of electronic signals rather than through an exchange of cash, checks, or other types of paper documents. It is also known as electronic funds transfer (EFT) and basically uses electronic means to transfer funds directly from one account to another. Internet banking is a financial institution with no physical branches; everything is completed online. There is no ability to cash a check, deposit cash and or coinage and such. Online banking is the ability to access account information,

make transfers, set up automatic payments and such via the Internet. Internet banking typically is an electronic payment system, that allows the bank account holder to execute the monetary transaction, such as bill payments, fund transfer, stop payment, balance enquiries, etc. anytime and anywhere using the bank's website. Online banking is part and parcel of the core banking system handled by the bank.

## 6.2 CONCEPT OF E-BANKING

Privatization and globalization of banks led to huge competition among established and the new banks. The banks increased the number of services offered to include insurance, pension funds, mutual funds, money market accounts, loans and credit plus securities. They were encouraged to explore other financial instruments while at the same time offering more convenience to customers to do any-time banking. The culmination of financial innovations in banking over the past decade triggered a major shift away from the traditional banking model to a new digital banking one.

For consumers, one of the biggest drivers of satisfaction has always been the ease to do business. One of the key reasons for customers switching banks has always been "Not happy with the services". This need led to the origin of the concept of E banking which primarily means banking anytime, anywhere. Digitization has ushered a new era for financial services. It has contributed to the banks entering a period of unprecedented disruptions, in part because financial services innovations have contributed to a completely new way in which customers can bank through the increased mass adoption of mobile technology to the digitization of cash. The concept of E banking has redefined a banking model that had been unchanged for decades resulting in established banks being forced to increase their pace of digital adoption as well as drastically reduce their overheads through cost cutting measures like cutting the number of bank branches in which they operate. In order to stay competitive in today's marketplace, banks and other financial institutions have expanded the range of services that they offer. These services can be divided into four main categories:

- Savings
- Payment services
- Borrowing
- Other financial services

## 6.3 IMPORTANCE OF E-BANKING

E-banking is a service provided by banks that enables a customer to conduct banking transactions, such as checking accounts, applying for loans or paying bills over the internet using a personal computer, mobile telephone or handheld computer. It includes a range of services like Electronic Funds Transfer (EFT), Automated Teller Machine (ATM), Electronic Data Interchange (EDI), Credit Cards and Electronic or Digital Cash. E-banking has certain advantages over the traditional banking system, as stated below:

- It provides 24 hours, 365 days a year services to the customers of the bank.
- It lowers the transaction cost.
- It inculcates a sense of financial discipline and promotes transparency.
- Customers can make the transactions from office, home or while travelling via cellular phones.

E-Banking through electronic systems continues to expand. While most traditional financial institutions offer online banking services, Web-only banks have also become strong competitors. For example, E*Trade Bank operates online while also providing customers with access to ATMs. These "e-banks" and "e-branches" provide nearly every needed financial service like: Obtain cash, check account balance, Transfer funds, Direct Deposits, Preauthorized payments of bills, cards, rents etc. Unquestionably, many more of these types of financial innovations will be created over the coming years to try to win customers by switching their accounts. However, the extent of how far this innovation can be developed is still not known precisely and for digital banking firms to continue their rapid growth will ultimately be bound to the reliability of new technology advancements and their performance will be directly affected either positively or negatively by this.

## 6.4 TECHNOLOGY USED IN BANKING

Yesterday technology is no more a technology vis-a-vis the banking industry but has become a basic prerequisite as an obligatory function to run a bank. For many years retail banks have been secure, highly profitable businesses. However, recent industry disruption has been knocking at the industry much more than before. The turning point was the global financial crisis experienced between 2007 and 2009 which not only led to large losses but also shook the trust of the financial customers worldwide. These factors combined with the fact that banking has been relatively undisturbed for centuries, meant it was time for change, and the change has been the rapid use of technology in all spheres of banking.Over the past decade financial service innovations have contributed to a completely new way in which customers can bank, threatening the status quo of traditional retail banks, and redefining a banking model which has been in place for generations. These new technological advancements have facilitated the rapid emergence of digital banking firms and FinTech companies like Paytm, PhonePe, MobiKwik, PayU, ETMoney, PolicyBazaar leading to established banks being forced to swiftly increase their pace of digital adoption to stay relevant and stop mass client attrition to these agile financial start-ups.

With cash being overtaken by card payments for the first time and enhancement in technology now at the forefront, digital banking is gaining importance among financial customers to properly manage their finances. This may seem counterintuitive but technology has in fact allowed us to have a closer relationship with our bank than ever before and has become an evolving area. Mobile banking, check imaging and smartwatches are some of the latest technology related financial innovations assisting customers with a

variety of ways in which to spend move and manage their money. Almost all banks have introduced Core Banking Solutions for their day-to-day operations. As such, banks are using the technology for Back end operations such as Analytics, Data storage and retrieval, Customer Relationship management (CRM), advances processing, report generation and decision making process.

Banking online and through electronic systems continues to expand. While most traditional financial institutions offer online banking services, Web-only banks have also become strong competitors.

## 6.5 EFT (ELECTRONIC FUND TRANSFER)

Electronic funds transfer (EFT) is an electronic method for transferring funds from one account to another either within a financial institution or across multiple institutions, by using computer-based systems, without the direct intervention of bank staff. Examples of EFT include receiving cash out of an ATM and then placing a stock buy order by using the telephone. Electronic payments are becoming more popular these days as they allow users to transfer funds by various online modes and eliminate any sort of geographical barriers. The ease of transferring money online helps in making most out of online banking services. For transferring money, banks provide multiple options based on various factors and needs of the customers, few of them are National Electronic Funds Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS), etc. Based on the value or speed of the transfer, service availability, and other factors, each mode of transfer has different kinds of features and flexibility as well as their own advantages and disadvantages. Moreover, many banks have their own digital wallets to facilitate additional methods of fund transfers online.

Out of various modes for online fund transfer digital wallets, UPI, etc. NEFT, RTGS, and IMPS are typically the most popular. In order to initiate a fund transfer, the originator or remitter (individual transferring the money), is required to have the basic account details of the beneficiary (to whom the money is being transferred) such as the account number, name on the account, IFSC , and the branch name etc. It is the originator who is considered responsible for ensuring the correctness of the account details used for a transfer of funds. Before understanding the various types of fund transfer methods, it is essential to learn the basic factors that are involved in each of the payment systems as explained below. These important factors distinguish the online fund transfer methods on various parameters:

1. **Fund Value:** The fund value is essential in determining which of the transfer methods are available for you. Depending on the value of the fund, the originator can choose a particular method. Moreover, for a newly registered beneficiary, a limited amount of funds is allowed to be transferred.

2. **Timings (service availability):** There are certain methods of fund transfer that allows 24/7 online transfers while other have specified timings. The latter will allow a remitter to initiate a fund transfer any

time of the day but the funds will settle only during the availability of the service. There are certain types of fund transfer methods that are not available during the weekend and public holidays while others operate round the clock throughout the year.

3. **Fund Settlement Speed:** After considering the fund value, most often an individual will look into the settlement speed factor. Each of the fund transfer methods come with different speed of fund settlement. Fund settlement speed indicates the amount of time consumed and the speed at which the funds are settled to the beneficiary's account once it's been initiated. In most cases, people largely choose one transfer method over other due to the speed factor, however, a faster settlement speed is bound to attract additional charges.

4. **Charges:** In accordance with the Reserve Bank of India (RBI), banks decide the transaction charges for each of the fund transfer methods. The charges are based on the total value of the fund, settlement speed, and other features/flexibility offered by the bank. Moreover, the government levies an applicable service charge for each fund transfer transaction. Particular bank's website can be referred to obtain the latest list of transaction fees and other charges.

5. **Transaction Limits:** All banking and financial institutions specify transaction limits on most types of banking and financial products. RBI regulates the transaction limits and all other factors of fund transfer through the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS). BPSS is a subcommittee of the Central Board of the RBI and designated for being the highest authority for making policies pertaining to the payment systems in India. Moreover, BPSS is also responsible for supervising all the payment and settlement systems. All the payment and settlement systems in India are regulated under the Payment and Settlement Systems Act, 2007 (PSS Act).

### 6.5.1 NEFT (National Electronic Fund Transfer)

National Electronic Funds Transfer or NEFT is the most commonly used online payment option to transfer money from one bank account to another. Usually, salary transfers by companies are done using NEFT. The funds are transferred on a deferred settlement basis, which implies that the money is transferred in batches. There is no maximum limit but this depends from one bank to another. For instance, the retail banking limit set by SBI is Rs. 10 lakhs. Based on the amount being transferred the bank can charge an amount from Rs 2.50 to Rs 25. The money can be transferred only during the bank working days. The transactions cannot be completed over the weekends and on bank holidays. It will be completed on the next working day. Thus, instant transactions can't be made using NEFT. Various requirements for conducting an NEFT transfer are:

- Recipient's name
- Recipient's bank name
- Recipients' account number

- IFSC code of the beneficiary bank

### 6.5.2 RTGS (Real Time Gross Settlement)

Money can be transferred from one bank to another on a real-time basis using Real Time Gross Settlement or RTGS method. There is no maximum transfer limit, but the minimum is Rs. 2 lakhs. The transactions are processed throughout the RTGS business hours. Usually, the amount is remitted within 30-minutes. To be able to transfer money through RTGS, it is required for the sender and the receiver bank branch to be RTGS enabled. It costs a little more than NEFT. But still, it will not cost you more than Rs. 30 for transactions up to Rs. 5 lakhs. The fee varies from one bank to another. Various requirements for conducting a RTGS are:

- Amount to be sent
- Account number of the remitter or sender
- Name of the recipient or beneficiary
- Account number of the beneficiary
- Beneficiary's bank and branch name
- IFSC code of the receiving branch
- Sender to receiver information, if any

### 6.5.3 IMPS (Immediate Payment Service)

An IMPS sends instant payments. The money is transferred instantaneously through mobile phones using this interbank electronic fund transfer service. You can make the transactions 24x7x365 across banks including all weekends and bank holidays. The money can be transferred using phones, ATMs, Mobile Money Identifier (MMID) and internet banking. The idea is simple to allow users to make payments with the mobile number of the beneficiary. Various requirements for conducting IMPS are:

- MMID of the Recipient
- 7 Digit MMID Number
- MMID of the receiver
- Name of the beneficiary
- Beneficiary's mobile number
- Account Number of the recipient
- IFSC Codes of the beneficiary bank

### 6.5.4 UPI

Unified Payments Interface is an instant real-time payment system developed by National Payments Corporation of India facilitating inter-bank transactions. The interface is regulated by the Reserve Bank of India and works by instantly transferring funds between two bank accounts on a mobile platform.

Source: UPI

**Fig 6.1: UPI**

Unified Payments Interface is a real time payment system that allows sending or requesting money from one bank account to another. Any UPI client app may be used and multiple bank accounts may be linked to single app. Money can be sent or requested with the following methods:

- Virtual Payment Address (VPA) or UPI ID: Send or request money from/to bank account mapped using VPA.
- Mobile number: Send or request money from/to the bank account mapped using mobile number.
- Account number & IFSC: Send money to the bank account.
- Aadhar: Send money to the bank account mapped using Aadhar number.
- QR code: Send money by QR code which has enclosed VPA, Account number and IFSC or Mobile number.


**Fig 6.2: Examples of UPI Apps**

### 6.5.5 Difference between NEFT, RTGS & IMPS

Irrespective of which system is being used, NEFT, RTGS, or IMPS, they function as robust fund transfer methods which allow individuals and businesses to transfer money online from anytime and anywhere in the world. Online transfer methods are subject to availability based on the customer's eligibility and level of access granted by the bank. Additionally, the limits on fund value, timings, settlement speed, and other factors are a part of the online fund transfer method. Currently, NEFT, RTGS, and IMPS are the most popular methods of fund transfer in India, few of the notable differences between these methods are listed below:

**Table 6.1: Key Differences between NEFT, RTGS and IMPS**

| Basis | NEFT | IMPS | RTGS |
|---|---|---|---|
| **Speed of settlement** | Half hourly | Real-Time | Real-Time |
| **Maximum transfer value** | No Limit | INR 200,000 | No Limit |
| **Minimum transfer value** | No Limit | No Limit | INR 200,000 |
| **Charges** | No Charges | Charges decided as per the bank for each transaction | No Charges |
| **Timing** | 24*7, 365 Days | 24*7, 365 Days | 7 am IST- 5 pm IST (On all working days for banks in India) |

Currently, Indians have the access to choose multiple fund transfer methods. The access to latest technology and an increasing demand for online-based service has left no stone unturned. From banking and financial institutions to governing bodies, and private businesses, the immense utilization of latest technology has helped almost everyone to bridge the gap between their customers, partners, vendors, etc. Considering the ever-increasing number of online users in India and all around the world, it is certain and undeniable that people like to transact digitally and prefer to send money online. Online fund transfers are not only fast, efficient, and convenient, but also useful for accounting and documentation purposes. Unlike other methods, online transfers are superior in terms of reliability and the cost factor as well.

**Check Your Progress A:**

1. What are the advantages of E-banking?

   ……

   ……

   ……

2. What is EFT?

……

……

……

……

3. What are the various constraints of NEFT?

……

……

……

……

……

4. What are the various requirements of IMPS?

……

……

……

……

……

## 6.6 VIRTUAL CURRENCY

Virtual currency, or virtual money, is a type of unregulated digital currency, which is issued and usually controlled by its developers and used and accepted among the members of a specific virtual community. The term came into existence around 2012, when the European Central Bank (ECB) defined virtual currency to classify types of "digital money in an unregulated environment, issued and controlled by its developers and used as a payment method among members of a specific virtual community," according to Bitcoin News Virtual currency can be defined as "an electronic representation of monetary value that may be issued, managed, and controlled by private issuers, developers, or the founding organization". Such virtual currencies are often represented in terms of tokens and may remain unregulated without a legal tender. The virtual currency is akin to a coupon.

Examples of virtual currencies are frequent flyer programs by various airlines, Microsoft Points, Nintendo Points, Facebook Credits and Amazon Coin etc. RBI has imposed a ban on the sale or purchase of crypto-currency by stating that financial institutions can no longer deal with entities that trade in virtual currencies such as Bitcoin. Along with use by the common public, a virtual currency can have restricted usage, and it may be in circulation only among the members of a specific online community or a virtual group of users who transact online on dedicated networks. Virtual currencies are mostly used for peer-to-peer payments and are finding increasing use for the

purchase of goods and services. The Reserve Bank of India had imposed a ban on crypto currency trading in April 2018 that barred banks and other financial institutions from facilitating "any service in relation to virtual currencies." Various features of a virtual currency are explained as below:

- Virtual currency is a type of unregulated digital currency that is only available in electronic form.
- It is stored and transacted only through designated software, mobile or computer applications, or through dedicated digital wallets, and the transactions occur over the internet through secure, dedicated networks.
- Virtual currency is considered to be a subset of the digital currency group, which also includes cryptocurrencies, which exist within the Blockchain network.
- It is not controlled by a centralized banking authority.
- Virtual currency is different than digital currency since digital currency is simply currency issued by a bank in digital form.
- Virtual currency is unregulated without a legal tender and therefore experiences dramatic price movements since the only real force behind trading is consumer sentiment.
- Unlike regular money, virtual currency relies on a system of trust and may not be issued by a central bank or other banking regulatory authority. They derive their value based on the underlying mechanism, like mining in cases of cryptocurrencies, or the backing by the underlying asset.

**Difference between Digital, Virtual, and Crypto Currencies**

Digital currency is the overall superset that includes virtual currency, which in turn includes crypto currencies. Compared to virtual currency, a digital currency covers a larger group that represents monetary assets in digital form. Digital currency can be regulated or unregulated. In the former case, it can be denominated to a sovereign currency that is, a country's central bank can issue a digital form of its fiat currency notes. On the other hand, a virtual currency often remains unregulated and hence constitutes a type of digital currency. Crypto currencies like bitcoin and ethereum are considered to be a part of the virtual currency group. A crypto currency uses cryptography technology that keeps the transactions secure and authentic, and also helps to manage and control the creation of new currency units. Such crypto currencies exist and are transacted over dedicated Blockchain-based networks that are open to the common public. Anyone can join and start transacting in crypto currencies.

## 6.7 AUTOMATED CLEARING HOUSE

Automated Clearing House (ACH) is a computer-based electronic network that coordinates electronic payments and automated money transfers i.e processes transactions, usually domestic low value payments, between participating financial institutions. ACH is a way to move money between banks without using paper checks, wire transfers, credit card networks, or

cash. ACH and EFT payments are similar in that they are both forms of electronic payments. However, EFT refers to all digital payments, whereas an ACH is a specific type of EFT. An ACH payment occurs when money moves from one bank to another bank. This money moves electronically, through the Automated Clearing House Network. In India National Automated Clearing House, or NACH, introduced by National Payments Corporation of India, is a centralized clearing service that aims at providing interbank high volume, low value transactions that are repetitive and periodic in nature. Most people already use ACH payments, although they might not be familiar with the technical jargon. When employers pay wages through direct deposit or consumers pay bills electronically out of checking accounts, the ACH network is often responsible for those payments. These computerized payments have benefits for both merchants and consumers as explained below:

1. **Lower costs:** ACH payments use fewer resources than traditional paper checks. There's no need for paper, ink, fuel to transport checks, time and labor to handle and deposit checks, and so on.
2. **Recordkeeping Convenience:** Electronic transactions make it easy to keep track of income and expenses. With every transaction, banks create an electronic record. Accounting and personal financial management tools can also access that transaction history.
3. **Convenience:** ACH is more convenient and easier to use as compared to the other methods of payment.
4. **Customer's preference:** ACH is preferred because of security, reduced human error and increase time savings, Faster processing time.

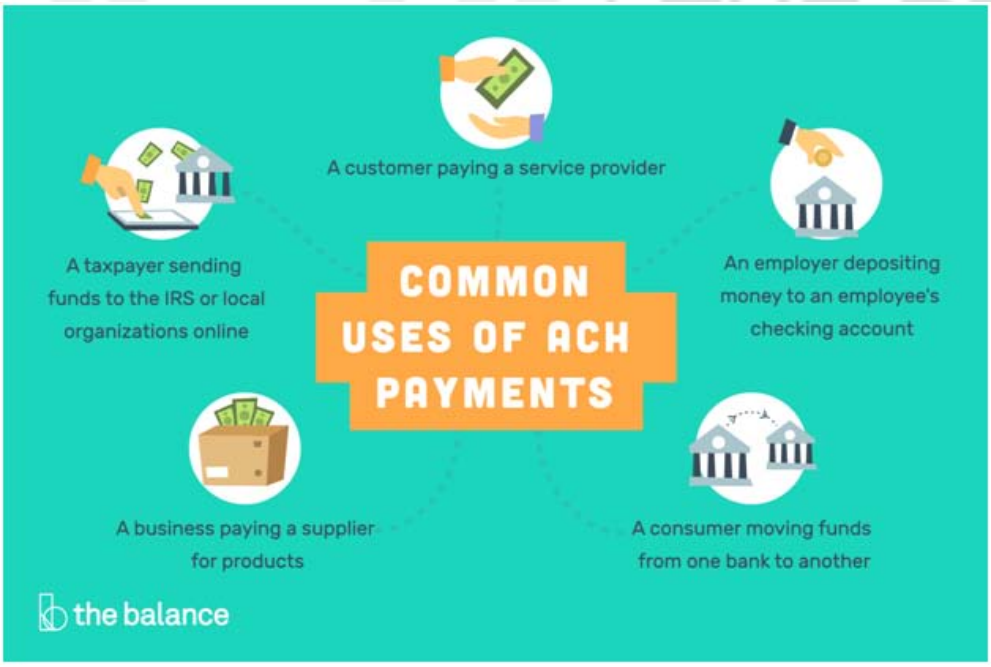


**Fig 6.3: Common uses of ACH Payments**

To complete payments, the organization requesting a payment (whether they want to send funds or receive funds) needs to get bank account information

from the other party involved. For example, an employer needs the following details from employees to set up direct deposit:

- The name of the bank or credit union receiving funds
- The type of account at that bank (checking or savings)
- The bank's ABA routing number
- The recipient's account number

With that information, payments can be created and routed to the correct account. Billers need those same details to make pre-authorized withdrawals from customer accounts. An originator starts a direct deposit or direct payment transaction using the ACH Network. Originators can be individuals, organizations, or government bodies, and ACH transactions can be either debit or credit. The originator's bank, also known as the originating depository financial institution (ODFI), takes the ACH transaction and batches it together with other ACH transactions to be sent out at regular times throughout the day.

An ACH operator, either the Federal Reserve or a clearing house, receives the batch of ACH transactions from the ODFI with the originator's transaction included. The ACH operator sorts the batch and makes transactions available to the bank or financial institution of the intended recipient, also known as the receiving depository financial institution (RDFI). The recipient's bank account receives the transaction, thus reconciling both accounts and ending the process. ACH payments are often electronic from start to finish. But sometimes merchants convert paper checks to electronic payments, and the funds move through the ACH system. The ACH Network essentially acts as a financial hub and helps people and organizations move money from one bank account to another. ACH transactions consist of direct deposits and direct payments, including B2B transactions, government transactions, and consumer transactions.

## 6.8 AUTOMATED LEDGER POSTING

Learning to identify anomalies in large-scale accounting data is one of the ancient challenges in financial statement audits or forensic investigations. Nowadays, the majority of applied techniques refer to handcrafted rules derived from known scenarios.


**Fig 6.4: Automated Ledger Posting**

The financial accounting term posting to the ledger refers to the process of analyzing the credits and debits appearing in journal entries, and recording those transaction amounts in the proper accounts found in the company's general ledger. The process of transferring the entries from journal to respective ledger accounts has been automated coining the term automated ledger posting. The balancing of ledgers is carried out automatically to find out differences at the end of the year. There are certain ways by which the ledger posting is automatically governed.

Artificial intelligence can help accountants to be more productive and efficient. Robotic process automation (RPA) allows machines or AI workers to complete repetitive, time-consuming tasks in business processes such as document analysis and handling that are plentiful in accounting.

**Algorithms and Volume of Data**

Two factors impact how well an AI platform is designed for accounting are:

1. Algorithms and the sophistication of its technology
2. The amount of data used for testing the technology

For an AI platform to perform exceptionally well, it has to have processed tens of millions of transactions to have a high level of certainty and prediction rate. Very few platforms reach that level since they either need to have a lot of clients or access to massive datasets.

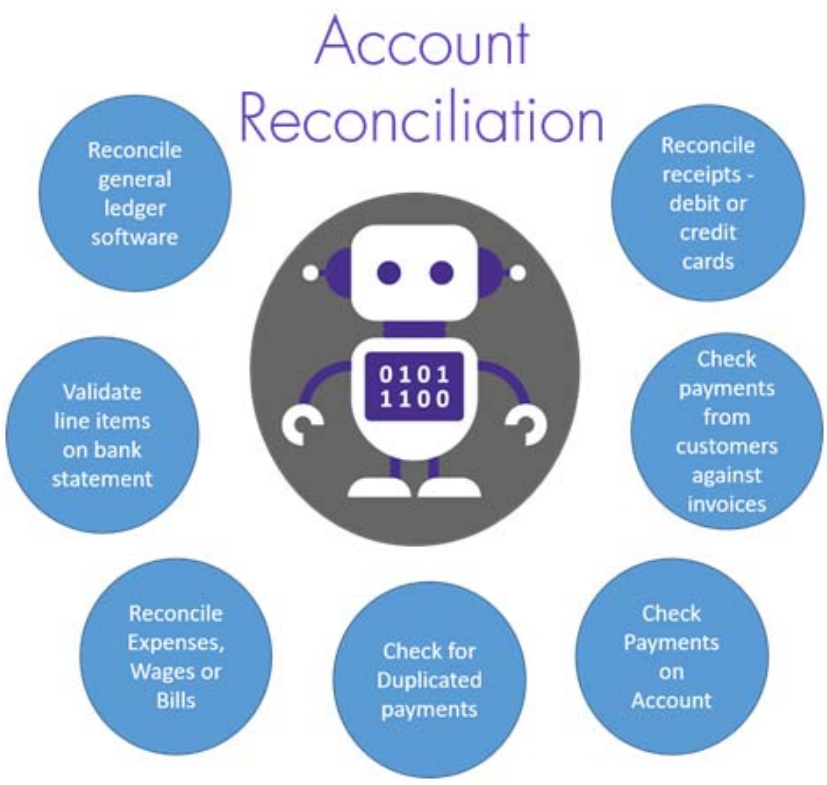


**Fig 6.5: Account Reconciliation**

AI can prevent these problems because well-trained AI knows everything needed to know a client (even tracing past trends, if applicable). AI can cut down on data retrieval fatigue and related human input errors by as much as 90%.

## 6.9 DISTRIBUTED LEDGER TECHNOLOGY

Since ancient times, ledgers have been at the heart of economic transactions, with the purpose of recording contracts, payments, buy-sell deals, or moving assets or property. The journey which began with recording on clay tablets or papyrus made a big leap with the invention of paper. Over the last couple of decades, computers have provided the process of record-keeping and ledger maintenance with great convenience and speed. Today, with innovation, the information stored on computers is moving towards much higher forms, which is cryptographically secure, fast, and decentralized. Companies can take advantage of this technology in many forms, one way being through distributed ledgers.

A distributed ledger can be described as a ledger of any transactions or contracts maintained in decentralized form across different locations and people, eliminating the need for a central authority to keep a check against manipulation. In this manner, a central authority is not needed to authorize or validate any transactions. All the information on the ledger is securely and accurately stored using cryptography and can be accessed using keys and cryptographic signatures. Once the information is stored, it becomes an immutable database, over which the rules of the network are applicable.

Thus a Distributed ledger technology (DLT) is a digital system for recording the transaction of assets in which the transactions details are recorded in multiple places at the same time. Unlike traditional databases, distributed ledgers have no central data store or administration functionality.

A distributed ledger is a database that is consensually shared and synchronized across multiple sites, institutions, or geographies, accessible by multiple people. It allows transactions to have public "witnesses". The participant at each node of the network can access the recordings shared across that network and can own an identical copy of it. Any changes or additions made to the ledger are reflected and copied to all participants in a matter of seconds or minutes. Underlying distributed ledgers is the same technology that is used by block chain, which is the technology that is used by bitcoin. Block chain is a type of distributed ledger used by bitcoin.

Advantages of Distributed Ledgers:

1. While centralized ledgers are prone to cyber-attack, distributed ledgers are inherently harder to attack because all of the distributed copies need to be attacked simultaneously for an attack to be successful. Furthermore, these records are resistant to malicious changes by a single party. By being difficult to manipulate and attack, distributed ledgers allow extensive transparency.

2. Distributed ledgers also reduce operational inefficiencies, speed up the amount of time a transaction takes to complete, are automated, and therefore function 24/7, all of which reduce overall costs for the entities that use them.

3. Distributed ledgers also provide an easy flow of information, which makes an audit trail easy to follow to accountants when they conduct reviews of financial statements. This helps remove the possibility of fraud occurring on the financial books of a company. The reduction in the use of paper is also a benefit to the environment.

Use of Distributed Ledgers:

1. Distributed ledger technology has great potential to revolutionize the way governments, institutions, and corporations work. It can help governments in tax collection, issuance of passports, recording land registries, licenses, and the outlay of Social Security benefits, as well as voting procedures.
2. While the distributed ledger technology has multiple advantages, it's in a nascent stage and is still being explored in how to adopt it in the best possible way. Though one thing is clear, that the future format of centuries-old ledgers is to be decentralized.

**Check Your Progress B:**

1. State the features of virtual currency.

   ……
   ……
   ……
   ……

2. What are the benefits of ACH Payments?

   ……
   ……
   ……
   ……

3. What is Automated Ledger Posting?

   ……
   ……
   ……
   ……
   ……
   ……

4. State the advantages of Distributed Ledgers.

   ……
   ……
   ……
   ……

## 6.10 LET US SUM UP

Electronic banking is a form of banking in which funds are transferred through an exchange of electronic signals rather than through an exchange of cash, checks, or other types of paper documents. It is also known as electronic funds transfer (EFT) and basically uses electronic means to transfer funds directly from one account to another. E-banking has certain advantages over the traditional banking system, as it provides 24 hours, 365 days a year services to the customers of the bank; lowers the transaction cost; inculcates a sense of financial discipline and promotes transparency; customers can make the transactions from office, home or while travelling via cellular phones.

For many years' retail banks have been secure, highly profitable businesses. However, recent industry disruption has been knocking at the industry much more than before. The turning point was the global financial crisis experienced between 2007 and 2009 which not only led to large losses but also shook the trust of the financial customers worldwide. These factors combined with the fact that banking has been relatively undisturbed for centuries, meant it was time for change, and the change has been the rapid use of technology in all spheres of banking.

Electronic funds transfer (EFT) is an electronic method for transferring funds from one account to another either within a financial institution or across multiple institutions. National Electronic Funds Transfer or NEFT is the most commonly used online payment option to transfer money from one bank account to another. Usually, salary transfers by companies are done using NEFT. The funds are transferred on a deferred settlement basis, which implies that the money is transferred in batches. Money can be transferred from one bank to another on a real-time basis using Real Time Gross Settlement or RTGS method. There is no maximum transfer limit, but the minimum is Rs. 2 lakhs. The transactions are processed throughout the RTGS business hours. IMPS send instant payments. The money is transferred instantaneously through mobile phones using this interbank electronic fund transfer service. You can make the transactions 24x7x365 across banks including all weekends and bank holidays.

Virtual currency, or virtual money, is a type of unregulated digital currency, which is issued and usually controlled by its developers and used and accepted among the members of a specific virtual community. The virtual currency is akin to a coupon. A virtual currency can have restricted usage, and it may be in circulation only among the members of a specific online community or a virtual group of users who transact online on dedicated networks. Automated Clearing House (ACH) is a computer-based electronic network that coordinates electronic payments and automated money transfers i.e. processes transactions, usually domestic low value payments, between participating financial institutions. ACH is a way to move money between banks without using paper checks, wire transfers, credit card networks, or cash. ACH and EFT payments are similar in that they are both forms of electronic payments.

The financial accounting term posting to the ledger refers to the process of analyzing the credits and debits appearing in journal entries, and recording those transaction amounts in the proper accounts found in the company's general ledger. Distributed ledger technology (DLT) is a digital system for recording the transaction of assets in which the transactions details are recorded in multiple places at the same time. Unlike traditional databases, distributed ledgers have no central data store or administration functionality.

## 6.11 KEY WORDS

**Electronic Banking:** E-banking is a form of banking in which funds are transferred through an exchange of electronic signals rather than through an exchange of cash, checks, or other types of paper documents.

**IFSC (Indian Financial System Code):** IFSC is a unique eleven-digit number which is a combination of alphabets and numerals given to a bank for a specific branch.

**NEFT (National Electronic Funds Transfer):** NEFT enables an individual electronically transfer funds from any bank branch to any individual having an account with any other bank branch in the country participating in the Scheme.

**RTGS (Real Time Gross Settlement):**RTGS is an electronic form of funds transfers where the transmission takes place on a real time basis. In India, transfer of funds with RTGS is done for high value transactions, the minimum amount being Rs. 2 lakh. The beneficiary account receives the funds transferred, on a real time basis.

**IMPS (Immediate Payment Service):** IMPS is an instant payment inter-bank electronic funds transfer system in India. IMPS offer an inter-bank electronic fund transfer service through mobile phones.

**Virtual Currency:** Virtual currency is termed as an electronic representation of monetary value that may be issued, managed, and controlled by private issuers, developers, or the founding organization.

**Automated Clearing House:** An automated clearing house is a computer-based electronic network to move money between banks without using paper checks, wire transfers, credit card networks, or cash.

**Distributed Ledger Technology:** Distributed ledger technology is a ledger of any transactions or contracts maintained in decentralized form across different locations and people, eliminating the need for a central authority to keep a check against manipulation.

## 6.12 TERMINAL QUESTION

1) What all reasons were responsible for the technological innovation in the banking industry?

2) What will be the things that need to be consider before initiating an online fund transfer? What all tools will you use?

3) What is the difference between NEFT,RTGS and IMPS?

4) What is a virtual currency? Why do you think crypto currency was banned by RBI?

5) What are the features of a virtual currency?

6) What is the difference between ACH and EFT?

7) What are the benefits of ACH payments?

8) Do you think Distributed Ledger Technology is revolutionizing the world? If so how?

| | |
|---|---|
| **Note** | These questions are helpful to understand this unit. Do efforts for writing the answer of these questions but do not send your answer to university. It is only for your practice. |

ignou THE PEOPLE'S UNIVERSITY