### Chapter 5 Recent Developments in Banking

### **E-Services**

<u>Meaning of E-Services</u>: Electronic Services refers to services over electronic and interactive communication channels. The concept of e services can be prominently applicable over all the industries these days. The list is as follows

- E-Services in banks is called as e-Banking.
- E-Services in Government is called as e-Governance.
- E-Services in commerce is called as e-Commerce
- · E-Services in business is called as e-Business.
- · E-Services in marketing is called as e-Marketing.

#### **E-Banking**

#### Meaning

Electronic banking or e-banking is the automated delivery of new and traditional banking products and services directly to customers through electronic and interactive communication channels.

Electronic banking is a term used for the processes by which a customer may perform banking transactions electronically without visiting a bank. E-banking is also called as "Virtual Banking" or "Online Banking".

#### Advantages

- 1. <u>Electronic transfers</u>: The process of transferring money from account one account to another has now become very easy. It is possible by just signing into an online bank account and clicking through a few steps.
- 2. Lesser transaction costs: Electronic transactions are the cheapest modes of transaction.
- 3. <u>No human error:</u> There is no room for human errors.
- 4. <u>Environmental friendliness</u>: The working of online banking goes hand in hand with paperless notifications. Hence it is environment-friendly.
- 5. <u>More loval customers:</u> E-banking services are customer-friendly, banks experience higher loyalty from its customers.
- 6. Convenience: A customer can access his account and transact from anywhere 24x7x365.
- 7. <u>Lower cost</u>: Since the customer does not have to visit the branch for every transaction, it saves him both time and money.
- 8. <u>No geographical barriers:</u> In traditional banking systems, geographical distances could hamper certain banking transactions. However, with e-banking, geographical barriers are reduced.
- 9. <u>Faster transactions</u>: Funds from one account will be transferred to another in a matter of a few seconds. Anything that requires quick payments can be done with the help of e-banking.
- 10. <u>Easy access</u>: Customers can enjoy easy access with online accounts by simply typing in the log-in credentials. In addition to that, customers can also handle several accounts at a time.
- 11. <u>Lesser limitations</u>: Traditional banks have several constraints like operating hours, the physical location of the bank branch, holidays, etc. In online, we can perform transactions at any time.

- 12. <u>Better customer service</u>: Banking websites and apps come with customized web pages to solve customer queries and often have a dedicated 'Frequently' Asked Question' (FAQs) section that helps in answering common customer queries. We can chat with a customer service agent or call them if we need more help. This not only saves the time of the customers but also that of the bank employees who can shift their focus to more important things.
- 13. <u>Issue of security alerts:</u> 24x7 access to online banking accounts and balance information, customers can get alerted to unusual activities relating to bank accounts and security issues immediately.
- 14. <u>Variety of services</u>: The increased variety of services is made available to the customers as compared to the traditional banking.

### Disadvantages

- 1. <u>Difficult for beginners:</u> Initially, customers are scared of losing their money and are often hesitant to explore all the options and features that are available on the website or on the app. New users often give up and stick to traditional banking if timely assistance isn't provided.
- 2. <u>Bank relationship:</u> A traditional bank provides the opportunity to develop a personal relationship with that bank. Getting to know the people at bank branch can be an advantage when a customer needs a loan or a special service that is not normally offered to the public. A bank manager usually has some discretion in changing the terms of customer's account if the customer's personal circumstances change. The banker also will get to know the customer and his unique needs. If the customer has a business account, this personal relationship may help if the customer needs capital to expand. It's easier to get the bank's support if there is someone who understands customer's business and vouch for his operating plan.
- 3. <u>Service issues:</u> Some direct banks may not offer all the comprehensive financial services such as insurance and brokerage accounts that traditional banks offer.
- 4. <u>Security:</u> Though most of the banks are well-reputed and established, there are times where customers face security issues. There's always a risk of actual identity theft. It's also possible to get unauthorized access to customer account via stolen or hacked log-in credentials.
- 5. <u>Technology issues</u>: In E-Banking, customer may face a lot of technological issues and transactions may be unsuccessful due to errors/ crash/ bugs.
- 6. <u>Not for everyone:</u> E-banking isn't for everyone. Illiterate and the elderly cannot use online banking. Neither can have an individual access to their accounts if they don't have an internet connection.

### **Debit Card**

<u>Meaning</u>: Debit card is an electronic card issued by a bank to its account holders to access their funds deposited in his or her bank account electronically.

#### Specimen of Debit Card

- <u>Bank logo</u>: The card has the logo of the bank that has issued it. It also has the logo which determines the type of debit card it is: Visa, Mastercard or RuPay logo.
- <u>EMV chip:</u> A chip that stores payment card information for payments on electronic payment terminals.

- <u>Card number</u>: This is a 16- digit number. The card number is unique and is not the same as the bank account number.
- <u>Contactless symbol</u>: In new debit cards, it contains a symbol for making contactless payments which does not require entering PIN code.
- Expiry date: It indicates a validity period of the card due to security reasons. It usually consists of a month and year format.
- <u>Card holder's name</u>: A card is issued in the name of the card holder and is not transferable to another person.
- Magnetic stripe: Card information is entered here for magnetic stripe readers.
- <u>Signature stripe:</u> A signature bar is provided on the back of the card. It is important that you sign the bar as soon as you receive the card. This can help you to prevent fraudulent transactions. Some merchant retail outlets do not swipe the card unless the signature is verified.
- <u>CVV (Card Verification Value)</u>: It is a 3-digit verification code that is located on the back of the card; this code is required for online payments. The CVV number is unique to every debit. This number needs to be provided at the time of making online payments. It provides an additional layer of security to the card.

### Advantages

- 1. Easy to obtain: Once we open an account most institutions will issue a debit card upon request.
- 2. <u>Instant withdrawal</u> of cash: The debit card facilitates instant withdrawal of cash from any nearest ATM. This helps its holder to avoid a personal visit to bank's office premise and wait in a long time consuming queue.
- 3. <u>Convenience:</u> Purchases can be made using a contactless or chip-enabled terminal or by swiping the card rather than filling out a paper check.
- 4. Safety: There is no need to carry cash or a checkbook.
- 5. <u>Readily accepted:</u> When out of town (or out of the country), debit cards are usually widely accepted.
- 6. <u>Prepaid card</u>: Debit cards act as a type of prepaid card. It is so, since it already has a sufficient amount of cash balance in its holder's bank account. It permits to carry on the value of the transactions (i.e., purchases) to the extent of available balance in its holder's bank account.
- 7. <u>Nominal Fee:</u> Bank issuing a debit card charges annual fee for the issuance and maintenance of card. This fee charged is very nominal in nature. Generally, bank charges the fee on a per annum or yearly basis. Such a fee gets automatically debited from the cardholder's bank account.
- 8. <u>Alternative to cash</u>: Debit card acts as an alternative mode of payment for executing various cash-related financial transactions. It can be used for the purchases of goods and receipt of services. In its presence, there is no need to carry a large amount of cash. Thus, it helps to avoid carrying huge amount of cash while travelling and minimizes risk of loss due to theft, damage etc.
- 9. Immediate transfer of funds: Debit card ensures immediate transfer of funds. Such a transfer of funds takes place almost instantly at the moment of purchase of goods and receipt of services. With its use, there is no need to visit bank's office premise and do manual transfer of cash. Thus, it saves precious time and gives ease, safety and comfort to its holder in his or her finance related activities.

10. <u>Easy management</u>: Debit card is very easy to carry, handle and manage while travelling to outstations or overseas. Being small, thin and flat and having an eligible weight, it easily fits in any pocket. It can be handled very freely even with just two finger. Managing it is also not a big problem.

### Disadvantages

- 1. <u>No grace period</u>: Unlike a credit card, a debit card uses funds directly from your checking account. A credit card allows you to borrow funds on credit, leaving disposable cash in your account.
- 2. <u>Check book balancing:</u> Balancing your account may be difficult unless you record every debit card transaction.
- <u>No credit allowed:</u> A debit card is linked to your bank account. There is no possibility of making any transaction on credit. All transactions and withdrawals are limited to the balance available in your account.
- 4. <u>Difficult to dispute fraudulent use:</u> It is easier to fraudulently use your debit card. In case someone steals the details of your card, especially the PIN and CVV, the chances of a fraudulent transaction are very high.
- 5. <u>Additional fees on ATM withdrawals:</u> Every bank offers you a limited number of 'free ATM transactions and other non-financial transactions per month at the branches of other banks. Once you exceed the limit of free withdrawals/ non-financial transactions, fees are levied.

### **Credit** Card

**Meaning:** A credit card is a type of credit facility, provided by banks that allow customers to borrow funds within a pre-approved credit limit enabling the customers to make purchase transactions on goods and services.

### Parties to Credit Card

- Issuer: The banks are the card issuing authorities.
- Card holder: Individual, corporate bodies.
- Member establishments: Shops and service organizations.
- <u>Member affiliates:</u> In case of tie-up arrangements with master card international, visa international, these organizations allow card holders of one bank, to use their card in member establishments of another bank.

### Characteristics

- 1. <u>Alternative to cash</u>: Credit card is a better alternative to cash. It removes the worry of carrying various currency denominations to pay at the trade customers. It is quite easy and way fast to use a credit card rather than waiting for completion of cash transactions.
- 2. <u>Credit limit is set:</u> The credit card holder enjoys the facility of credit limit set on his / her card. The credit limit is decided by the bank using the card after the consideration of various factors like salary, repayment capacity, drawings of the customer etc.
- 3. <u>Supports domestic and foreign payments</u>: The credit cards gives the permission to its card holders to make payments in any currency to their choice in the other countries and in local

currency in domestic places, the usage of these reduces complex and time consuming process of currency conversion.

- 4. <u>Keep the records of transactions:</u> Credit card issuing entities like banks or NBFCs keeps complete record of all transactions made by the card holder. Such records make the system of usage transparent and the billing process flexible.
- 5. <u>Regular charges:</u> The credit cards issuing banks or NBFCs have a basic routine charge on every transactions made, it has to be borne by the cardholder. The charges are very nominal.
- 6. <u>Grace period</u>: The Grace period is referred to those minimum numbers of additional days within which a credit card holder has to pay his bill without the occurrence of additional interest or charges.
- 7. <u>Charges on cash withdrawals:</u> Credit cards can also be used to withdraw the cash at the ATM outlets and other desks; however, such a service comes at a cost or additional charges. These charges are quite costlier and higher than that regularly charged by banks / NBFCs and cash withdrawn from credit card, also includes interest to be paid on repayment.
- 8. <u>Additional charges for delay in payment:</u> The credit card payments are supposed to be made within the due date as mentioned on the bill, however, if the holder breaks down to meet the deadline, he may have to incur additional costs.

#### Advantages

- 1. <u>Buy on credit</u>: One among the most important benefits of credit card is you can convert the total amount of your purchases into low-cost EMIs to enable you to repay it easily over a period of time. This has helped revolutionize the shopping experience.
- 2. <u>Most accepted method of payment:</u> We can travel anywhere, without carrying much money if you have this card. Being the most accepted method of payment, you can use a credit card to pay anything.
- 3. <u>Interest-free cash withdrawals:</u> There are a few credit cards that allow you to withdraw money up to a certain limit in case of emergency, with no interest charged up to 45 to 50 days. You can make use of it in times of financial emergency.
- 4. <u>Unlimited reward points:</u> These cards come with reward points when you use them. Bank credit cards offer unlimited and never-expiring reward points, which are easily redeemable.
- 5. <u>Insurance coverage</u>: We get personal accident coverage, as well as comprehensive travel insurance coverage and this is one of the significant benefits of credit cards, which make them attractive.
- 6. <u>Make travel easy:</u> The uses of credit cards in travel make them important. Bank credit cards; give a unique experience through complimentary lounge access at the airports and railway stations in India and priority check-in. Other than these, customers can also enjoy discounts on food also.
- 7. <u>Discounts and cash backs</u>: The advantages of credit cards extend to discounts on some of favourite entertainment and dining outlets, travel and shopping apps, etc.
- 8. <u>Improve your credit score:</u> The benefits of credit cards do not limit to shopping on credit; instead, it helps improve credit score. If we know how to use a credit card and how to make use of the credit period, and repay the amount used on time, we can boost our CIBIL score. This will help to obtain loans, without any difficulty in future.
- 9. Offers safety: We don't have to carry much money if we have a credit card.

10. <u>Keep track of your expenses:</u> The statements you get every month from net banking helps you check your expenses and plan the repayment without any delay.

### Disadvantages

- 1. <u>Temptation</u>: Since they're so easy to use, they also make it easy to overspend.
- 2. <u>Interest charges:</u> If we buy something and don't pay it off immediately, we will end up paying not only the purchase price but also the interest charge on that item.
- 3. <u>Fees:</u> No matter how many facilities and offers your credit card provides, there will always be hidden costs like cash advance fees and late payment fees that a lot of credit card customers do not know about.
- 4. <u>Monthly scrutiny</u>: Must review bill each month to confirm that it accurately reflects the purchases and that there aren't any signs of fraudulent use of card. Credit cards are a prime target for scammers.

### Difference between Debit card and Credit card

Basis	Debit card	Credit card	
Meaning	Debit card is an electronic card issued by a bank to its account holders to access their funds deposited in his or her bank account electronically.	A credit card is a type of credit facility, provided by banks that allow customers to borrow funds within a pre-approved credit limit enabling the customers to make purchase transactions on goods and services.	
Money	Money from Card holder's bank account. (Spending own money)	Borrowing money from bank or financial institution. (Spending other's mohey)	
Line of credit	No line of credit.	Carries line of credit.	
Interest	There is no interest that is charged.	Interest is charged on the outstanding amount if it hasn't been paid by the due date.	
Credit history	Does not affect the credit history.	Responsible credit card usage and payment can improve one's credit rating.	
Legal liability laws	Lean.	Strict.	
Account	Savings account and Current account.	Need not be connected to any bank account.	
Monthly bills	There is no bill or statement.	You get a bill or statement each month with details of the transactions you have made.	
Risk of spending	Less risk of spending because debit cards make it more difficult to overspend, since it is limited to the amount available in the	Risk of spending is more.	

	account.		
Payment of purchase	You pay for your purchase.	The credit card company pays the vendor for your purchase. You pay the credit card company.	
Fees and charges	Charges for usage of debit cards.	Credit cards have multiple fees applicable. These include joining fees, annual fees, late payment fees, and bounced cheque fees among others.	
Rewards	Rewards are minimal.	Get to enjoy cashback, air miles, and reward points which can be redeemed.	
Privileges	Does not come with many privileges.	Come with numerous dining, retail, entertainment, and travel privileges (depending on the type of card you have).	

### **Internet Banking**

<u>Meaning</u>: Internet banking is the facility or service provided by bank to the customer to conduct the financial and non-financial transactions through internet. The user can transfer funds from his account to other accounts of the same bank/ different bank using bank's website. The resource that a customer uses might be an electronic device like a computer or laptop.

#### Advantages

- 1. <u>Convenience</u>: It is quite convenient as we can easily pay our bills, can transfer funds between accounts. We do not have to stand in a queue to pay the bills.
- 2. <u>Availability:</u> The services are available anywhere/anytime 24/7X365. It is available all the time. We can perform tasks from anywhere and at any time, even at night or on holidays when the bank is closed. The only thing we need to have is an active internet connection.
- 3. <u>Fast and efficient:</u> It is fast and efficient. Funds get transferred from one account to the other very fast. We can also manage several accounts easily through internet banking.
- 4. We can keep an eye on our transactions and account balance all the time.
- 5. We can get to know about any fraudulent activity or threat to our account before it can pose any severe damage.
- 6. It's a great medium for the banks to endorse their products and services.
- 7. Low cost, unlimited access and lesser hassles.
- 8. Wider reach to public, competitive edge for banks, enhances image of banks as technology driven bank.
- 9. An effective marketing tool for promotion of various schemes of bank

#### Disadvantages

- 1. Internet requirement: An uninterrupted internet connection is a foremost requirement to use
- internet banking services. If we do not have access to the internet, we cannot make use of any

facilities offered online. Similarly, if the bank servers are down due to any technical issues on their part, we cannot access net banking services.

- 2. <u>Server down:</u> If the bank's server is down, due to the loss of net connectivity or a slow connection, then it might be hard to know if whether transaction went through or not. If the bank's server is down, then we cannot access our accounts online.
- 3. <u>Difficult for beginners</u>: There are people in India who have been living lives far away from the web of the internet. It might seem a whole new deal for them to understand how internet banking works. Worse still, if there is nobody who can explain them on how internet banking works and the process flow of how to go about it. It will be very difficult for inexperienced beginners to figure it out for themselves.
- 4. <u>Transaction security:</u> No matter how much precaution banks take to provide a secure network, online banking transactions are still susceptible to hackers. Irrespective of the advanced encryption methods used to keep user data safe, there have been cases where the transaction data is compromised. This may cause a major threat such as using the data illegally for the hacker's benefit.
- 5. <u>Securing Password:</u> Every internet banking account requires the password to be entered in order to access the services. Therefore, the password plays a key role in maintaining integrity. If the password is revealed to others, they may utilise the information to devise some fraud.
- 6. Inconvenient to make deposits.
- 7. Inefficient at complex transactions

8. Bank servers and its operational capacity for relatively larger transactions remain a big issue. (Note: Concepts of Internet banking and E banking can be alternatively used.)

#### MICR (Magnetic Ink Character Recognition) Technology

#### Meaning

MICR is a technology used to verify the legitimacy or originality of paper documents, especially cheques.

Magnetic ink character recognition, or MICR, is a character recognition technology used primarily by the banking industry to facilitate the processing and clearance of cheques and other documents.

#### How does magnetic ink character recognition work?

Magnetic ink character recognition works by printing a MICR line on a cheque using magnetic ink or toner. The magnetic ink, which usually contains iron oxide, enables a computer to read the MICR numbers, even if they've been covered by marks or writing. MICR is made up of

- The routing number is a nine-character number used to identify the bank on which the cheque is drawn. Banks are issued routing numbers based on the state in which they operate.
- The **account number** is a 12-character number used to identify the checking account associated with the cheque.
- The cheque **number** is a three or four character number used to identify a cheque in a series of cheque for an account holder. This number should be identical to the number printed at the top right-hand corner of the check. Some banks may reverse the order of the account and cheque . numbers.

### Reasons why MICR is deemed important in Banking

- Magnetic readers easily process cheque because they can quickly identify the banks that issued them. It also eliminates the need to manually verify or validate the cheque. Thus, this technology saves valuable time because it facilitates document processing more efficiently.
- Even if the MIRC line has been covered with signatures or cancellation marks, the magnetic quality of the characters still allows the MICR read the information accurately. And since the special character font ensures reliable character recognition, it greatly limits the incidence of cheque fraud.
- Before the Magnetic Ink Character Recognition system was used, it took weeks for banks to clear cheque. But now, this technology rapidly processes high volume of cheques per day making bank transactions done within minutes. The system truly makes banking a pleasant experience for everyone.

#### Advantages

- <u>Reduced fraud</u>: The MICR line protects against some forms of financial fraud by using magnetic ink and unique MICR fonts. If someone changes the name of the payer of the cheque, the MICR number still shows the correct owner of the account. And, if someone tries to photocopy a cheque, the MICR reader doesn't detect the magnetic ink.
- 2. <u>Accuracy:</u> MICR characters can be read through marks such as stamps and signatures because of the special ink that's used to print the characters.
- 3. <u>Processing speeds:</u> A cheque can be processed quickly using a MICR reader.
- 4. <u>Low error rates:</u> Compared to other character recognition systems, the error rate for MICR is small.
- 5. <u>Security:</u> MICR is more secure compared to optical character recognition because the printed characters can't be changed.

### Disadvantages

- 1. Only certain characters and symbols can be read, and it doesn't use alphanumeric
- 2. MICR printing is demanding, as it has stringent standards.
- 3. The iron oxide ink and the strict printing format can make the process expensive.

#### **Electronic Clearing Services (ECS)**

<u>Meaning</u>: It is a mode of electronic funds transfer from one bank account to another bank account using the services of a clearing house. ECS is used by institutions for making bulk payment of amounts towards distribution of dividend, interest, salary, pension, etc., or for bulk collection of amounts towards telephone / electricity / water dues, cess / tax collections, loan installment repayments, periodic investments in mutual funds, etc.

### Advantages

- 1. Banks get freed from paper handling.
- 2. The work load of destination branches is reduced.
- 3. The customer gets immediate credit in respect of interest and dividend on securities held by them.
- 4. There is no need for issuing cheque by the person for making payments because debit in his or her bank account will be made automatically.

### Disadvantages

- 1. The scheme covers the amounts exceeding one lakh rupees.
- 2. The scheme is available only in big cities.

### **Small Finance Banks**

<u>Meaning</u>: Small Finance Banks is a specific segment of banking created by RBI under the guidance of Government of India with an objective of furthering financial inclusion by primarily undertaking basic banking activities to un-served and underserved sections including small business units, small and marginal farmers, micro units etc.

### **Objectives**

- 1. Provision of savings
- 2. <u>Access to financial services:</u> The main purpose behind having small finance banks is to expand access to financial services in rural and semi-urban areas. These banks can do almost everything that a normal commercial bank can do but at a much smaller scale.
- 3. <u>Basic banking services:</u> It will offer basic banking services, accept deposits and lend to underserved sections of customers, including small business units, small and marginal farmers, micro and small industries, and even entities in the unorganised sector.
- 4. <u>Alternative institution:</u> Small finance banks have the potential to provide an alternative to some of the existing institutions with their mandated focus on small and medium businesses, the informal sector, small and marginal farmers and thus on increasing financial inclusion and serving a variety of unserved clients in the hinterland and tier three and four cities and towns.

List of SFBs in India: There are 11 Small Finance Banks operating in India. They are

- 1. AU Small Finance Bank
- 2. Capital Small Finance Bank
- 3. Fincare Small Finance Bank
- 4. Equitas Small Finance Bank
- 5. ESAF Small Finance Bank
- 6. Suryoday Small Finance Bank
- 7. Ujjivan Small Finance Bank
- 8. Utkarsh Small Finance Bank
- 9. North East Small Finance Bank
- 10. Jana Small Finance Bank
- 11. Shivalik Small Finance Bank

Small Finance Banks in India operate as Scheduled Commercial Banks. They are registered under RBI. Only 4 Small Finance Banks in India are listed in stock market. The BSE listed small finance banks are AU Small Finance Bank, Equitas Small Finance Bank, Ujjivan Small Finance Bank, Suryoday Small Finance Bank. Small Finance Banks have witnessed a rapid growth in their branch network and asset base while maintaining a healthy asset quality. They are generating high return on assets. These banks are focusing more on Micro, Small and Medium Enterprises (MSMEs). They are providing service to people with less credit access.

### **Payment Banks**

Meaning: A payments bank is a bank conceptualised by RBI which operates on a smaller scale without involving any credit risk.

List of Payment Banks in India: There 6 payment banks operating in India. They are

- 1. Airtel Payment Bank
- 2. India Post Payment Bank
- 3. Fino Payment Bank
- 4. Paytm Payment Bank
- 5. NSDL Payment Bank
- 6. Jio Payment Bank.

### Features

- 1. They are differentiated and not universal banks.
- 2. These operate on a smaller scale.
- 3. It needs to have a minimum paid-up capital of Rs. 100,00,00,000.
- 4. Minimum initial contribution of the promoter to the Payment Bank to the paid-up equity capital shall at least be 40% for the first five years from the commencement of its business.

### Activities that can be performed

- Payment banks can take deposits up to Rs. 2,00,000. It can accept demand deposits in the form of savings and current accounts.
- The money received as deposits can be invested in secure government securities only in the form of Statutory Liquidity Ratio (SLR). This must amount to 75% of the demand deposit balance. The remaining 25% is to be placed as time deposits with other scheduled commercial banks.
- Payments banks will be permitted to make personal payments and receive cross border remittances on the current accounts.
- It can issue debit cards.

### Activities that cannot be performed

- Payment banks receive a 'differentiated' bank license from the RBI and hence cannot lend.
- · Payment banks cannot issue credit cards.
- It cannot accept time deposits or NRI deposits.
- It cannot issue loans.
- It cannot set up subsidiaries to undertake non-banking financial activities.

### Advantages

- 1. Expansion of rural banking and financial inclusion.
- 2. Expansion of the formal financial system.
- 3. Effective alternative to commercial banks.
- 4. Efficiently deals with low value, high volume transactions.
- 5. Access to diversified services.

### Disadvantages

- 1. Lack of awareness among the masses to access these services.
- 2. Lack of incentives for the agents to involve themselves in these activities.
- 3. Lack of infrastructure and access to operational resources.
- 4. Technological hurdles.

### **E-Payments**

Meaning: E-payments are an electronic or digital way of transferring funds.

### Advantages

- 1. More transparent
- 2. Fast and Secure
- 3. Increase in sale
- 4. User friendly
- 5. Lower transaction cost

### Disadvantages

- 1. Risk of trading
- 2. Risk of password threats
- 3. Low consumer acceptance
- 4. Less accuracy
- 5. Requirement of internet access

### **Electronic Money**

<u>Meaning</u>: Electronic money (e-money) is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to entities other than the e-money issuer. Electronic money can be classified into two broad categories

- Hard: Hard electronic money is when e-money is used for irreversible transactions, ones that are highly securitized, and are more or less procedural in nature.
- Soft: Soft electronic money is when e-money is used for reversible or flexible transactions.

#### Advantages

- 1. Cheaper and safe
- 2. No need to use a debit or credit card
- 3. It organize automatic payments
- 4. No need to wait for any money to clear before claiming
- 5. Convenience

#### Disadvantages

- 1. It is unlike as credit card, the person need to have money in the account.
- 2. The user will not get a canceled cheque
- 3. No audit trial
- 4. Suspectable to forgery

### **Know Your Customers (KYC)**

<u>Meaning</u>: It is a process by which banks obtain information about the identity and address of the customers. To open a KYC account one needs to submit Aadhaar/enrolment number and PAN as 'proof of identity and proof of address' together with a recent photograph.

**Objective:** To prevent banks from being used, by criminal elements for money laundering activities. It is a mandatory procedure in India that helps banks, insurance companies and other financial institutions verify prospective customers' addresses and identities before conducting transactions. It includes verifying the customer's identity, address, occupation, residential status, financial status and other personal details.

**<u>KYC Policy:</u>** As per RBI guidelines, all banks are required to formulate a KYC Policy with the approval of their respective boards. The KYC Policy consists of the following 4 key elements

- Customer Acceptance Policy
- Customer Identification Procedures
- Monitoring of transactions or Ongoing due diligence
- Risk Management

### Why KYC is required?

- KYC process helps financial entities verify that investments or transactions are being made in a real person's name.
- This helps cut down unlawful practices like money laundering, fraud or financing illegal activities.
- KYC compliance is required to open bank accounts, Demat and trading accounts, start fixed deposits or invest in mutual funds.
- It is even needed if we want to apply for a home or a personal loan.

### What documents are required for KYC verification?

- Passport
- Driving License
- Voter's ID
- PAN card
- Aadhaar card issued by UIDAI
- Job card issued by NREGA signed by a State Government

### What are the types of KYC?

There are different types of KYC in India based on the verification process. These are

- <u>Aadhaar based KYC (eKYC)</u>: The eKYC process involves downloading the KYC application form from the KYC registration agency's official website and filling in necessary details, entering and verifying Aadhaar and mobile number using an OTP.
- Offline KYC or In-Person-Verification (IPV) KYC: This involves physically meeting the Bank officials with original documents.
- <u>Central KYC (CKYC)</u>: CKYC is the process of submitting the KYC documents and authenticating our identity, after which, the KYC records are added to the central repository. This central repository is maintained by the Central Registry of Securitisation Asset Reconstruction and

Security Interest of India (CERSAI) and can be accessed using the 14-digit number assigned against the record.

#### **Mobile Banking**

**Meaning:** Mobile banking is a system that allows customers of a financial institution to conduct a number of financial transactions through a mobile device such as a mobile phone or personal digital assistant.

### **Types of Mobile Banking Services**

- 1. <u>Mobile Banking over WAP:</u> The customers can download the mobile application of the concerned bank on their smartphones and then use it to avail various services provided by the bank. They need to register for mobile banking separately and receive their login credentials to use mobile banking applications. Banks may offer single or different mobile applications for different banking services. For instance, the bank may offer an e-Passbook application that only serves the purpose of account balance check since the applications acts like a digital passbook and there is another mobile application for other services such as funds transfer, bill payment, and more in addition to balance check. The customers can choose to download one or more applications provided by the bank to avail mobile banking services. Some of the major mobile banking services have been mentioned here
  - Balance Enquiry
  - View Account Statement
  - Fund Transfer
  - Bill Payment
  - Branch Locator
  - ATM Locator
  - Service Requests
- 2. <u>Mobile Banking over SMS:</u> Banks offer mobile banking services over SMS. The customers need to sign up for this service, known as SMS Banking by registering their mobile number. Then, they can send SMS to the bank to inquire about their account balance, check the mini account statement, etc. The bank then replies with an SMS that contains the information requested by the customer.

The customers do not need to own a smart phone or internet access to avail SMS banking services. Banks have a specific phone number registered and an SMS format that the customers need to follow to avail of this service. For instance, to check the available balance in their account, they may have to send an SMS in the format: AVAIL BAL XXXX where XXXX is the last 4 digits of the account number. The bank replies with an SMS with the current available balance in the account.

3. <u>Mobile Banking over USSD</u>: Banks offer mobile banking over USSD service to people who do not own a smart phone or have access to the internet. They can simply use USSD codes provided by the banks to avail banking services. The customers dial a prefix code and click send. Then, they receive a menu containing the banking services such as balance enquiry, mini account statement,

etc. that they can avail using their phone. This service is quite popular in rural areas where most people do not own smart phones and do not have access to the internet

#### Advantages

- It also eliminates the inconvenience of carrying multiple payment cards or a laptop for internet banking. In case of online banking we must have an internet connection and a computer. This is a problem in developing countries. However, with mobile banking, connectivity is not a problem. We can find mobile connectivity in the remotest of places also where having an internet connection is a problem.
- 2. <u>Convenience:</u> In mobile banking, a customer is able to access bank accounts and make payments regardless of the time and place. Financial transactions can be performed round-the-clock and even during holidays. Mobile banking does not require calling a bank or physically visiting it.
- 3. <u>Time saving:</u> It eliminates the time lost in physically going to the bank. A customer can schedule and receive payments, transfer money and check account balances within minutes.
- 4. <u>No Time Limit:</u> Usually banks are open and close at a particular time but mobile banking gives the facility for 24 hours from any place. There is no time limit for using mobile banking which makes it better.
- 5. <u>Easy access to finance</u>: In some far flung areas where there are no banks and the nearest bank is a good distance away, it serves as a convenient choice for accessing financial services for most mobile phone owners. A user can easily check his account balance, transfer funds, pay bills, etc. Fraud avoidance: Customers who use mobile banking have a better knowledge of their financial transactions and day to-day balances and hence are more likely to catch incorrect or fraudulent transactions.
- Improved Security: Mobile banking is very safe to use. It requires authentication every time while using it. Banks also update their app on a regular basis so the security feature must be up to date without any worry. It is safer than internet banking.
- 7. <u>Remote Banking:</u> Since this is mobile app banking it is convenient to take everywhere we want and use it wherever possible. Thus it is beneficial when we are on travel and we do not have much cash with us then mobile banking is really helpful. We do not have to search for ATMs and Banks. Increased efficiency: Mobile banking is functional, competitive and efficient. It reduces the amount of paperwork and decongests the banks.
- 8. We can make transactions and pay bills anytime. It saves a lot of time.
- 9. It is cost effective.
- 10. <u>Check on Transaction</u>: Mobile banking is an easy way to keep a check on our expenses. Every time we make any payments we can easily check the statement and where the money was spent.
- 11. SMS alert whenever there is an activity in account like in case of deposits, cash withdrawals, fund transfer etc.
- 12. It helps the banks in cutting down the cost of telebanking and is more economical.
- 13. It is advantageous to banks as it serve as a guide to in order to help the banks improve their customer care services.
- 14. Various banking services like Account balance enquiry, Credit/Debit alerts, Bill payment alerts, Transaction history, Fund transfer facilities, Minimum balance alerts etc can be accessed from mobile banking.

### Disadvantages

- 1. Despite a high base of mobile phone users, the smart phone penetration is limited. This restricts use of full scale mobile banking; users can't download banking applications on basic phones. They have to depend on SMS, which is cumbersome.
- 2. Mobile banking users are at risk of getting fake SMS messages and scams.
- 3. <u>Threat of virus and spams:</u> Mobile Banking comes with a huge risk to the customer of being under attack by a virus or even by a spam message.
- 4. <u>Theft of mobile:</u> Customers can lose money if the bank account information gets leaked and the criminals gain access to the bank account through mobile web or mobile apps.
- Internet Service Charges: Mobile banking is totally dependent upon the internet facility. If this
  facility is affected then mobile banking will also get disturbed. When the network is good then we
  can easily use the services otherwise we cannot access it. Thus this is the biggest disadvantage of
  mobile banking.
- .6. <u>Amount Limitation</u>: in this, we cannot transfer funds above the given range by the bank. if we want to transfer a big amount at once then it is not always possible by mobile banking. There is a limitation on the amount of fund transfer.
- 7. <u>Fraud</u>: In mobile banking, there is a chance of fraud because it is technology-based and many unauthorized people want to make benefit from doing fraud. Some people get into the trap and lose money. There are the usual risks associated with mobile banking that could include hacking.
- 8. <u>Device Restriction:</u> Not all smartphones are able to install the mobile banking app. Thus it is restricted to some smartphones that have the facility to install the app. All the devices cannot access the app which is one of the limitations of mobile banking.

### Electronic Fund Transfer (EFT)

<u>Meaning</u>: Electronic Funds Transfer means, "Moving funds between different accounts in the same or different banks, through the use of wire transfer, automatic teller machines, or computers, but without the use of paper documents".

### Advantages

- 1. Reduced transaction processing costs
- 2. Improved efficiency
- 3. Increased visibility and control
- 4. EFT is a faster mode of transfer.
- 5. No paper work is involved.
- 6. No requirement for the beneficiary to go to the bank since the beneficiary's account is credited automatically.
- 7. In-built security systems ensure safer mode of transference of funds.

### Various modes of EFT in India

- National Electronic Funds Transfer (NEFT)
- Real Time Gross Settlement (RTGS)
- Immediate Payment Service (IMPS)
- Unified Payment Interface (UPI)

### **Crypto Currency**

<u>Meaning</u>: A crypto-currency or crypto is a digital currency designed to work as a medium of exchange through a computer network that is not reliant on any central authority, such as a government or bank, to uphold or maintain it. A crypto-currency is an encrypted data string that denotes a unit of currency. It is monitored and organized by a peer-to-peer network called a block chain, which also serves as a secure ledger of transactions, e.g, buying, selling, and transferring.

### Advantages

- 1. Funds transfer between two parties will be easy without the need of third party like credit/debit cards or banks.
- 2. It is a cheaper alternative compared to other online transactions.
- 3. Payments are safe and secured and offer an unprecedented level of anonymity.
- 4. Modern crypto currency systems come with a user "wallet" or account address which is accessible only by a public key and pirate key. The private key is only known to the owner of the wallet.
- 5. Funds transfers are completed with minimal processing fees.

### **Disadvantages**

- 1. Almost hidden nature of crypto currency transactions makes them easy to be the focus of illegal activities such as money laundering, tax-evasion and possibly even terror-financing.
- 2. Payments are not irreversible.
- 3. Crypto currencies are not accepted everywhere and have limited value elsewhere.
- 4. There is concern that crypto currencies like Bitcoin are not rooted in any material goods. Some research, however, has identified that the cost of producing a Bitcoin, which requires an increasingly large amount of energy, is directly related to its market price.

#### Real Time Gross Settlement (RTGS)

<u>Meaning</u>: RTGS system is a fund transfer mechanism where transfer of money takes place from one bank branch to another branch on a "real time" and on "gross basis". 'Real Time' means the processing of instructions at the time they are received; 'Gross Settlement' means that the settlement of funds transfer instructions occurs individually. RTGS system has been operational since 2004.

### Features

- 1. The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is 2 lakhs. There is no upper ceiling for RTGS transactions.
- 2. RTGS helps banks to settle interbank and forex settlements.
- 3. It is a real time funds transfer system which facilitates to transfer funds from one bank to another in real time or on a gross basis. The transaction isn't put on a waiting list and cleared out instantly
- 4. The remitting customer needs to add the beneficiary and his bank account details prior to transacting funds via RTGS. The details required while transferring funds would be the beneficiary's name; his/her account number, receiver's bank address and the IFSC code of the respective bank.
- 5. RTGS payment gateway, maintained by the Reserve Bank of India makes transactions between banks electronically. The transferred amount is instantly deducted from the account of one banks and credited to the other bank's account.

- 6. Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable.
- 7. Under normal circumstances the beneficiary branches are expected to receive the funds in real time as soon as funds are transferred by the remitting bank. The beneficiary bank has to credit the beneficiary's account within 30 minutes of receiving the fund transfer message.
- 8. The remitting bank receives a message from the Reserve Bank that money has been credited to the receiving bank. Based on this message, the remitting bank can advise the remitting customer that funds have been delivered to the receiving bank.
- 9. The RTGS service window for customer transactions is available to banks from 7 am to 6 pm on a working day, for settlement at the RBI end. However, the timings that the banks follow may vary from bank to bank.
- 10. With effect from 01 July 2019, the Reserve Bank has waived the processing charges levied by it for RTGS transactions.
- 11. Since RTGS is routed through RBI platform, the credit risk is minimized.
- 12. In RTGS, the remitters account is debited first and only then the funds are transferred, unlike cheque clearance which does not allow the drawer to enjoy float time.
- 13. The RTGS quickly transfer funds if all details like beneficiary's name, account number, IFSC code etc., are furnished properly.
- 14. The transfer mechanism is dynamic and on real time basis, thus, facilitating the transfer of funds immediately.

### Benefits

- 1. It is a safe and secure system for funds transfer.
- 2. RTGS transactions / transfers have no amount cap.
- 3. The system is available on all days on 24x7x365 basis. There is real time transfer of funds to the beneficiary account.
- 4. The remitter need not use a physical cheque or a demand draft.
- 5. The beneficiary need not visit a bank branch for depositing the paper instruments.
- 6. The beneficiary need not be apprehensive about loss / theft of physical instruments or the likelihood of fraudulent encashment thereof.
- 7. Remitter can initiate the remittances from his / her home / place of work using internet banking, if his / her bank offers such service.
- 8. The transaction charges have been capped by RBI.
- 9. The transaction has legal backing.

### National Electronic Fund Transfer (NEFT)

**Meaning:** National Electronic Funds Transfer (NEFT) is a nation-wide payment system facilitating oneto-one funds transfer. Under this Scheme, individuals, firms and corporate can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme. The NEFT payment system was introduced in 2005.

#### Features

1. NEFT is a funds transfer system which enables a customer of a bank to transfer funds to another customer of another bank having account with any participating bank.

- 2. NEFT allows both intra and inter bank funds transfer within a city and across cities. Even such individuals who do not have a bank account (walk-in customers) can also deposit cash at the NEFT enabled branches.
- 3. Since it is in the form of E-Transfer, without any physical movement of instruments, funds can be transferred quickly.
- 4. The Beneficiary customer gets funds in their account on the same day or at the earliest on the next day depending upon the time of settlement.
- 5. Both the originating and destination bank branches should be on NEFT platform.
- 6. The correct details of IFSC, beneficiaries name, account number etc, should be furnished to the originating bank. IFSC or Indian Financial System Code is an alpha-numeric code that uniquely identifies a bank-branch participating in the NEFT system.
- 7. The originating bank branch can keep track of the status of NEFT transaction.
- 8. In case, for any reason, the destination branch is not able to afford credit to the beneficiaries account, destination branch/bank, have to return the funds to the originating bank within two hours of completion of the branch through which the transaction was processed.
- 9. It is not only easy method of transfer of funds but also enables the remitters to have user friendly and cost-effective transfer of funds.
- 10. There is no limit either minimum or maximum on the amount of funds that could be transferred using NEFT. However, maximum amount per transaction is limited to Rs 50,000 for cash-based remittances within India.
- 11. There is no restriction of centres or of any geographical area within the country. The NEFT system takes advantage of the core banking system in banks. Accordingly, the settlement of funds between originating and receiving banks takes places centrally at Mumbai, whereas the branches participating in NEFT can be located anywhere across the length and breadth of the country.
- 12. Presently, NEFT operates in hourly batches from 8 am to 7 pm on all working days of the week (except 2nd and 4th Saturday of the month)
- 13. The structure of charges that can be levied on the customer for NEFT is given below
  - a. Inward transactions at destination bank branches (for credit to beneficiary accounts): Free, no charges to be levied on beneficiaries.
  - b. Outward transactions at originating bank branches: Charges applicable for the remitter
    - ✓ For transactions up to Rs 10,000: Not exceeding Rs 2.50 (+ GST)
    - ✓ For transactions above Rs 10,000 up to Rs 1 lakh: Not exceeding Rs 5 (+ GST)
    - ✓ For transactions above Rs 1 lakh and up to Rs 2 lakhs: Not exceeding Rs 15 (+ GST)
    - ✓ For transactions above Rs 2 lakhs: Not exceeding Rs 25 (+ GST)

#### How NEFT works?

• <u>Step 1:</u> An individual / firm / corporate intending to originate transfer of funds through NEFT has to fill an application form providing details of the beneficiary (like name of the beneficiary, name of the bank branch where the beneficiary has an account, IFSC of the beneficiary bank branch, account type and account number) and the amount to be remitted. The application form will be available at NEFT enabled originating bank branch.

- ✓ The remitter authorizes his/her bank branch to debit his account and remit the specified amount to the beneficiary.
- ✓ Customers enjoying net banking facility offered by their bankers can also initiate the funds transfer request online. Some banks offer the NEFT facility even through the ATMs.
- ✓ Walk in customers will; however, have to give their contact details (complete address and telephone number, etc.) to the branch.
- ✓ This will help the branch to refund the money to the customer in case credit could not be ad lo afforded to the beneficiary's bank account or the transaction is rejected / returned for any reason.
- <u>Step 2:</u> The originating bank branch prepares a message and sends the message to its pooling centre (also called the NEFT Service Centre).
- <u>Step 3:</u> The pooling centre forwards the message to the NEFT Clearing Centre (operated by National Clearing Cell, Reserve Bank of India, Mumbai) to be included for the next available batch.
- <u>Step 4:</u> The Clearing Centre sorts the funds transfer transactions destination bank-wise and prepares accounting entries to receive funds from the originating banks (debit) and give the funds to the destination banks (credit). Thereafter, bank-wise remittance messages are forwarded to the destination banks through their pooling centre (NEFT Service Centre).
- <u>Step 5:</u> The destination banks receive the inward remittance messages from the Clearing Centre and pass on the credit to the beneficiary customers' accounts.

### NEFT procedure in internet banking

- <u>Step 1:</u> To transfer the funds via NEFT online, we have to first login to our net banking account. If there is no net banking account we have to register for it on the website of our bank.
- <u>Step 2:</u> Add the beneficiary as a payee. To do so, we have to enter the following details about the beneficiary in the "Add New Payee" section
  - \* Name
  - Account number
  - ✤ IFSC Code
  - Account type
- Step 3: Once the payee is added, choose NEFT as mode of fund transfer.
- Step 4: Select the account we wish to transfer money from and select the payee
- Step 5: Click on submit.

### Benefits

- 1. The remitter need not send the physical cheque or demand draft to the beneficiary.
- 2. Beneficiary need not visit the bank for depositing the paper instruments.
- 3. Beneficiary need not be apprehensive of loss or theft of physical instruments or the likelihood of fraudulent encashment.
- 4. Cost effective.
- 5. Credit confirmation of the remittance sent by SMS or email.
- 6. Remitter can initiate the remittances from his home or place of work.
- 7. Near Real time transfer of the funds to the beneficiary account in a secure manner.

### **Immediate Payment Service (IMPS)**

Meaning: IMPS is an emphatic service which allows transferring of funds instantly within banks across India which is not only safe but also economical. IMPS provides robust & real time fund transfer which offers an instant, 24X7, interbank electronic fund transfer service that could be accessed on multiple channels like Mobile, Internet, ATM, SMS.

#### Objectives

- 1. To enable bank customers to use mobile instruments as a channel for accessing their banks accounts and remit funds.
- 2. Making payment simpler just with the mobile number of the beneficiary.
- 3. To sub-serve the goal of Reserve Bank of India (RBI) in electronification of retail payments.
- 4. To facilitate mobile payment systems already introduced in India with the Reserve Bank of India Mobile Payment Guidelines 2008 to be inter-operable across banks and mobile operators in a safe and secured manner.
- 5. To build the foundation for a full range of mobile based Banking services.

#### **Participants**

- 1. Remitter (Sender)
- 2. Beneficiary (Receiver)
- 3. Banks
- 4. National Financial Switch NPCI (National Payments Corporation of India)

#### Types

 Using Mobile number & MMID (P2P): IMPS offer an instant, 24\*7 interbank electronic fund transfer service capable of processing person to person, person to account and person to merchant remittances via mobile, internet and ATMs. It is a multichannel and multidimensional platform that makes the payments possible within fraction of seconds with all the standards and integrity maintained for security required for even high worth transactions.

Sender & Receiver - Have to register for Mobile Banking & get a unique ID called "MMID". MMID - Mobile Money Identifier (7 digit code) Each MMID is linked to a unique Mobile Number. Different MMIDs can be linked to same Mobile Number. Generation of MMID is a Onetime process. Remitter (Sender) transfer funds to beneficiary (Receiver) using Mobile number & 7digit MMID of beneficiary.

 Using Account number & IFS Code (P2A): Presently, IMPS Person-to-Person (P2P) funds transfer requires the Remitter customer to make funds transfer using Beneficiary Mobile Number and MMID. Both Remitter as well as Beneficiary needs to register their mobile number with their respective bank account and get MMID, in order to send or receive funds using IMPS.

There may be cases where Remitter is enabled on Mobile Banking, but Beneficiary mobile number is not registered with any bank account. In such cases, Remitter shall not be able to send money to the Beneficiary using Mobile Number & MMID.

Hence on the merit of the feedback received from the banking community as well as to cater the above mentioned need, the IMPS funds transfer has been made possible using Beneficiary

account number and IFS code (IFS Code - 11 digit alphanumeric numbers, available in the users Cheque book) as well, in addition to Beneficiary mobile number and MMID.

### How IMPS works?

- 1. Remitter sends the instructions to sender bank server.
- 2. Validates the details and pass to NPCI servers and SMS confirmation to sender after debiting his account.
- 3. NPCI passes transactions to receiver bank and once it gets confirmation about the transaction, sends the status to sender bank.
- 4. Receiver bank validates the transactions and credits the receiver account with money and sends the status to NPCI server.
- 5. Receiver gets the money on successful transaction.

### Features

- 1. IMPS is an innovative real time payment service that is available round the clock.
- 2. IMPS service accessed on multiple channels like Mobile, Internet, ATM, SMS, Branch and USSD.
- 3. IMPS is an emphatic service which allow transferring of funds instantly within banks across India which is not only safe but also economical.
- 4. IMPS remittance using Mobile number & MMID (P2P Person to Person) or Using Account number & IFS Code (P2A Person to Account).
- 5. For using IMPS on mobile phones, a customer will have to register for mobile banking with his/her individual bank. However, for initiating IMPS using Bank branch, Internet banking and ATM channels, no prior Mobile banking registration is required.
- 6. Customer can link more than one account to the same mobile number. However each A/C no. will have different MMID.
- The beneficiary customer need not register for IMPS, if receiving money using bank account details. However, for receiving money using Mobile no. & MMID, Mobile registration is mandatory.
- 8. <u>Stop payment:</u> IMPS is an immediate fund transfer service, after initiating the payment request payment cannot be stopped or cancelled.
- 9. If a customer changes his Mobile number he needs to update the new mobile number with their bank.
- 10. If a customer changes only the Telecom service provider and not the number then there is no need for re-registration.
- 11. The charges for remittance through IMPS are decided by the banks and Pre-Paid Payments Instrument Issuer (PPI).
- 12. IMPS Maximum Limit per transaction is Rs 2 lakh.

### Benefits

- 1. Instant transfer of money
- 2. Available 24\*7
- 3. Safe and secure, easily accessible and cost effective
- 4. Channel Independent can be initiated from Mobile/ Internet / ATM channels

- 5. Debit & Credit Confirmation by SMS
- 6. Funds Transfer and Remittances

### Difference between RTGS, NEFT and IMPS

Basis	RTGS	NEFT	IMPD
Meaning	RTGS system is a fund transfer mechanism where transfer of money takes places from one bank branch to another bank branch on a "real time" and on "gross basis"	NEFT is a nation wide payment system facilitating one to one funds transfer.	IMPS provides robust and real time fund transfer which offers an instant, 24/7 inter bank electronic fund transfer.
Minimum transfer value (PT)	2 lakhs	1 lakhs	1 lakhs
<b>Payment</b> options	Online and Offline	Online and Offline	Online
Maximum transfer value (PT)	No limit	No limit	Rs 2 lakhs
Settlement type	Real time	Half hourly basis from 8 am to 7 pm on all working days of the week (except 2 <sup>nd</sup> and 4 <sup>th</sup> Saturday of the month)	Real time
Managed by	RBI	RBI	NPCI
Inward transaction charges	No charges	No charges	Decide by individual member banks and PPI.
Service timings	7 am to 6 pm on all working days	8 am to 7 pm on all working days of the week (except $2^{nd}$ and $4^{th}$ Saturday of the month)	Available 365 days – 24*7

(NOTE: In difference PT means Per Transaction)

## Chapter 5 Recent Developments in Banking Part 2

### **Basel Norms**

<u>Meaning</u>: Basel guidelines refer to board supervisory standards formulated by the group of central banks – called Basel Committee on Banking Supervision (BCBS) to coordinate banking regulations across the globe, with the goal of strengthening the international banking system.

### What is the Basel committee on Banking Supervision?

- The Basel Committee on Banking Supervision (BCBS) is the primary global standard setter for the prudential regulation of banks and provides a forum for regular cooperation on banking supervisory matters for the central banks of different countries.
- It was established by the Central Bank governors of the Group of Ten countries in 1974.
- The committee expanded its membership in 2009 and then again in 2014. The BCBS now has 45 members from 28 Jurisdictions, consisting of Central Banks and authorities with responsibility of banking regulation.
- It provides a forum for regular cooperation on banking supervisory matters.
- Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide.

### Why the name Basel?

- Basel is a city in Switzerland.
- It is the headquarters of the Bureau of International Settlement (BIS), which fosters cooperation among central banks with a common goal of financial stability and common standards of banking regulations.
- It was founded in 1930.
- The Basel Committee on Banking Supervision is housed in the BIS offices in Basel, Switzerland.

#### Why these norms?

- · Banks lend to different types of borrowers and each carries its own risk.
- They lend the deposits of the public as well as money raised from the market i.e, equity and debt.
- This exposes the bank to a variety of risks of default and as a result they fall at times.
- Therefore, Banks have to keep aside a certain percentage of capital as security against the risk of non – recovery.
- The Basel committee has produced norms called Basel Norms for banking to tackle this risk.

#### **Basel-I**

- 1. It was introduced in 1988.
- 2. It focused almost entirely on credit risk. Credit risk is the possibility of a loss resulting from a borrower's failure to repay a loan or meet contractual obligations. Traditionally, it refers to the risk that a lender may not receive the owed principal and interest.
- 3. It defined capital and structure of risk weights for banks.

- 4. The minimum capital requirement was fixed at 8% of risk weighted assets (RWA). RWA means assets with different risk profiles. For example, an asset backed by collateral would carry lesser risks as compared to personal loans, which have no collateral.
- 5. India adopted Basel-I guidelines in 1999.

### **Basel-II**

- 1. In 2004, Basel II guidelines were published by BCBS.
- 2. These were the refined and reformed versions of Basel I accord.
- 3. The guidelines were based on three parameters, which the committee calls it as pillars.
  - a. <u>Capital Adequacy Requirements:</u> Banks should maintain a minimum capital adequacy requirement of 8% of risk assets.
  - b. <u>Supervisory Review</u>: According to this, banks were needed to develop and use better risk management techniques in monitoring and managing all the three types of risks that a bank faces, viz. credit, market and operational risks.
  - c. <u>Market Discipline</u>: This needs increased disclosure requirements. Banks need to mandatorily disclose their CAR, risk exposure, etc to the central bank.
- 4. Basel II norms in India and overseas are yet to be fully implemented though India follows these norms.

### **Basel III**

- 1. In 2010, Basel III guidelines were released.
- 2. These guidelines were introduced in response to the financial crisis of 2008.
- 3. A need was felt to further strengthen the system as banks in the developed economies were undercapitalized, over-leveraged and had a greater reliance on short-term funding.
- 4. It was also felt that the quantity and quality of capital under Basel II were deemed insufficient to contain any further risk.
- 5. The guidelines aim to promote a more resilient banking system by focusing on four vital banking parameters viz. capital, leverage, funding and liquidity.
  - **a.** <u>Capital:</u> The capital adequacy ratio is to be maintained at 12.9%. The minimum Tier 1 capital ratio and the minimum Tier 2 capital ratio have to be maintained at 10.5% and 2% of risk-weighted assets respectively.
  - b. Leverage: The leverage rate has to be at least 3%.
  - c. Funding and Liquidity: Basel-III created two liquidity ratios: LCR and NSFR.
    - ✓ The liquidity coverage ratio (LCR) will require banks to hold a buffer of highquality liquid assets sufficient to deal with the cash outflows encountered in an acute short term stress scenario as specified by supervisors. This is to prevent situations like "Bank Run". The goal is to ensure that banks have enough liquidity for a 30-days stress scenario if it were to happen. LCR measures short-term (30 days) resilience.
    - ✓ The Net Stable Funds Rate (NSFR) requires banks to maintain a stable funding profile in relation to their off-balance-sheet assets and activities. NSFR requires banks to fund their activities with stable sources of finance (reliable over the oneyear horizon). The minimum NSFR requirement is 100%. NSFR measures medium-term (1 year) resilience.

6. The deadline for the implementation of Basel-III was March 2019 in India. It was postponed to March 2020. In light of the coronavirus pandemic, the RBI decided to defer the implementation of Basel norms by further 6 months.

### E Wallets or Digital Wallet

### Meaning

Digital or Electronic Wallet (e-wallet) refers to an electronic, internet based payment system which stores financial value as well as personal identity related information. Such electronic payment systems enable a customer to pay online for the goods and services, including transferring funds to others, by using a mobile or computer.

An e-wallet is nothing but an electronic version of a traditional or physical wallet, through which one can make payments. When e-wallet is used on a smart phone, it is referred to as a mobile wallet or e-wallet or digital wallet.

### Application

- Recharges of mobile, DTH and broadband
- Bill payment of mobile, electricity, water etc
- Purchases of goods from offline retailers (any merchant shops)
- Movie and travel ticket booking
- Investment in mutual funds and gold
- Premium payment of insurance policies
- Online fund transfers
- Online food order

### Types

### 1. Closed Wallet

- a. These mobile wallets are linked to a company or merchant. The money kept in such wallets can be used only for purchase from that merchant.
- b. We would not get back money from this wallet either in the bank account or cash.
- c. Any merchant or e-commerce site can give this facility. It does not require authorization or Approval from the RBI.
- d. When we purchase an online gift card from a retailer such as Shoppers Stop, Big Bazaar etc, the money is kept in the e-wallet. We can use this wallet only for the purchases from that retailer.
- e. When we return an item to the merchant like Myntra, Jabong etc, the refund amount is kept in a wallet. We can use that money for further purchases. Such wallets are the closed wallets.
- f. Examples: Bookmyshow, Myntra, Jabong, Ola Money, Makemytrip, Flipkart.

### 2. Semi Closed Wallet

- a. A RBI approval is required to start and operate a semi-closed wallet.
- b. This type of mobile wallets can be used with more than one merchant. But, the wallet and merchant should have a contract for the payment arrangement.

- c. These wallets can be used to transact online and offline which include buying goods and services, financial services, payment of fees, premium etc., through / to merchants which have a specific contract with the issuer to accept payment instruments.
- d. The merchant can be a seller of goods, services or financial products. It can also have the remittance facility.
- e. The banks or Non-Banks can issue this type of wallet with the authorization of RBI.
- f. We would not get back the money in cash. It does not give cash withdrawal facility. However, we can get back the money in into bank account. The wallet can charge a fee for that.
- g. Semi-closed wallets are the payment wallets prevalent in the system.
- h. Examples: Paytm, Freecharge, Mobikwik, Phonepe

### 3. Open Wallet

- a. This mobile wallet can be used for any type of purchases and transactions. It can be goods, services, financial services and remittance.
- b. A prior contract is not necessary for the transaction.
- c. Only banks can issue such wallets. Banks can also issue such wallet in a partnership of a third party.
- d. These wallets can be used to perform all the transactions of semi-closed wallets plus withdraw cash at ATMs or banks and transfers funds.
- e. Examples: ICICI Pockets, Vodafone M-Pesa, PayZapp, SBI Buddy, HDFC Chillar

### How e-Wallet works?

- <u>Step 1: Download e-Wallet Application:</u> Download preferred e-wallet application from iOS, Android or Windows. Sign up with the E-wallet by providing E-mail address and other personal details.
- <u>Step 2: Load Money to e-Wallet:</u> Under mobile or electronic wallet, the individual pre-loads cash in the e-wallet and use it to make payments or transfers. Loading of money is done either electronically using a computer / mobile by debiting from a credit card or bank account. What is required is an internet connection and a mobile/computer. With the technology in place, mobile based operations through e-wallets have become a mode for financial inclusion. We can also link e-wallet application to our bank account with the help of net banking or debit/credit card, and fill wallet with e-money.

There are charges for use of mobile / e-wallet, which include registration fees and cash loading charges (above a limit) towards payment companies / service providers. These charges are at times higher than those for internet banking. However, the main advantage with the e-wallet is that while shopping online, the customer stands to benefit from the concessions/ offers from the payment companies in the form of cash-backs etc.

- Step 3: Open e-Wallet application in the mobile/computer
- Step 4: Enter your PIN or password each time we need to make a payment or transfer of money
- Step 5: Choose the transaction to be made
- Step 6: Make Payment.

### Importance

- Accountability: With the help of e-Wallets, it becomes easy to trace transactions completely. Every money spent or received will be mentioned in the e-wallets statements, and such statements are accessible at any time, thus, adding accountability to the product.
- 2. <u>Instantaneous</u>: In comparison with e-banking facilities available in the market, e-wallets are smooth and help in faster transactional execution. For banks, they deal with larger transactions which consume a lot of time, while e-wallets carry out similar and smaller transactions at a much faster pace and lesser time.
- 3. <u>Safety:</u> E-Wallet system is much safe compared to the banks, this is wallet mostly people put in a few account of money in the wallet which they may use in a few/ little days, this means that there is low risk of loss even if the accounts are hacked or accounts are lost due to unforeseen circumstances.
- 4. <u>Better customer response time:</u> Most of the banks follow a standard working hours, and it is not possible to get response in case if the customer does not approach the bank at that point, for other serious issues to be resolved banks may take a lot of days, with e-wallets, the customer may get their problems resolved instantly without any hassles as the communications team of such wallets work 24/7.
- 5. <u>Good discounts:</u> Most of the e-wallets these days offer good discount on a number of products as well as bill paying services. This means, it becomes easy to save a few rupees when a person chooses to transact with such e-wallets.

#### Advantages

- 1. <u>Cashless transaction</u>: E-Wallets help customer go cash less and card less. There is no need to carry money and search for change; this offers the comfort and convenience factor to the customer.
- 2. Secure and safe: It is not always wise to carry a lot of money as there is a chance to lose it, embracing e-wallets means that one does not have to carry cash, debit cards / credit cards physically, so, e-wallets are secure and safe. Further e-wallets avoid the dangers associated with card thefts. The Reserve Bank of India also issues the PrePaid Payment Instrument license to the completely secured E-wallets. So with the certified e-wallets, no need not worry about the security of the transactions passing through the correct channel. Secondly, all the top E-wallets keep personal data safe and encrypted. This covers personal safety as well.
- 3. <u>Convenient:</u> E-Wallets are fastly becoming the most easy and appropriate form of payment mechanism. It is the most convenient method to pay as all that it demands is a smart phone and a bank account.
- 4. <u>Fast and streamlined payment</u>: All the e-wallets based transactions are always much faster, be it online or offline payments, all that a person needs to do is "tap and pay".
- 5. <u>Multiple accounts</u>: The major merit of an e-wallet is that one can store multiple cards and account information in one single application and can choose the payment mechanism as desired.

#### Disadvantages

- 1. Mobile network connectivity is the biggest impediment. Network problems and reliable and fast Internet connectivity is not available in most of the developing countries.
- 2. People are always under the fear of misuse of their money by hackers and frauds.

- 3. Enough support infrastructure is not available. In countries like India there is not enough financial inclusion and financial literacy. Unless that builds up, there is no use in bringing in more and more advanced technologies.
- 4. It also does not cater to needs of the entire population. It's an app on a smart phone. Most of them are using simple cell phones.
- 5. Replacing day-to-day transactions with money is easier said than done. For e.g. in a crowded bus, buying a ticket by paying a conductor through mobile wallet does not seem a viable option.
- 6. Sometimes it may charge more to process payments.

### Automated Teller Machine (ATM)

**Meaning:** An Automated Teller Machine is an electronic telecommunications device that enables customers of financial institutions to perform financial transactions, such as cash withdrawals, deposits, funds transfers, balance inquiries or account information inquiries, at any time and without the need for direct interaction with bank staff.

### Types

- 1. <u>On-Site ATMs</u>: ATMs which are located within the premises of the Bank's Branch are referred as On-Site ATMs.
- Off-Site ATMs: ATMs which are located at public places are Off-Site ATMs. ATMs located at Food Worlds, Railway Stations, Petrol Bunks, Airports and other places are examples of Off-Site ATMs.

### Features

- 1. ATM allows people to complete transactions without the help of a bank representative or teller.
- 2. It avoids travelling with money.
- 3. It can perform both cash and non-cash transactions in a totally secured environment.
- 4. To use an ATM, consumers need to have a debit or credit card, and a personal identification number.
- 5. Customers are typically identified by inserting a plastic ATM card or some other acceptable payment card into the ATM, with authentication being by the customer entering a Personal Identification Number (PIN). Upon successful entry of the PIN, the customer may perform a transaction.
- 6. Many cards come with a chip, which transmits data from the card to the machine. These work in the same fashion as a bar code that is scanned by a code reader.
- 7. The following are some of the functions of the ATMs
  - a. Cash withdrawal
  - b. Cash deposit
  - c. Transfer funds between linked bank accounts
  - d. Balance enquiry
  - e. Prints recent transactions list/Getting Mini Statement
  - f. Bill payments like mobile bill, water bill, power bill, insurance premium payments
  - g. Prepaid mobile recharge
  - h. ATM Pin change

i. Credit card cash advances

### Advantages

- 1. ATMs provide service round the clock. The customer can withdraw cash up to a certain limit during any time of the day or night.
- 2. ATMs provide convenience to the customers. Now-a-days, ATMs are located at convenient places, such as the airports, railway stations, etc., and not necessarily in the bank premises. The ATMs are installed on and off-sites as well.
- 3. The ATMs drastically reduces the workload associated with bank staff.
- 4. Variety of services at one point. ATMs provide services without error, the customers can get various services very easily with zero human interface.
- 5. ATMs are of great help to the travellers. They need not carry large amounts of cash with them, and they can withdraw cash from any city or state, across the country.
- 6. There is larger privacy to the customers in the banking transactions.
- 7. ATM continues to operate when businesses close due to natural disasters, a health crisis or economic depression. ATM can be relied on during an emergency shows how they are vital in uncertain and normal times.
- 8. ATM is cheaper to maintain.

### **Disadvantages**

- 1. Lack of personal service is a disadvantage of ATM Machines. There are no bank assistants to help or to ask questions to.
- 2. ATMs may be unreliable especially when they are down. In case of system failure; there is nothing that we can do until they are restored.
- 3. The transactions are done through PIN, if pin is forgotten, transactions may not be done.
- 4. Availability of eash in ATM machines at all circumstances is not guaranteed that is it may run out of eash.
- 5. The cost levied to an individual using an ATM could be higher although this varies with banks.
- 6. Machines may fail to recognise bank cards.
- 7. There is a limit to the amount of cash one can withdraw from an ATM which can be an inconvenience if customers require more funds.

### **De-Materialized (DEMAT) Account**

<u>Meaning</u>: Demat Account or dematerialised account provides facility of holding shares and securities in electronic format. During online trading, shares are bought and held in a Demat account, thus facilitating easy trade for the users. A Demat Account holds all the investments an individual makes in shares, government securities, exchange-traded funds, bonds and mutual funds in one place.

<u>Meaning of Dematerialisation</u>: Dematerialisation is the process of converting the physical share certificates into electronic form. It is a lot easier to maintain and is accessible from anywhere throughout the world.

### Concepts of Depository system or Players involved in Demat

1. <u>Depository</u>: Depository is an organization or a system where securities / shares are held in electronic form. A depository is similar to a bank.

- The bank transfers money without handling money. A depository transfers securities / shares without handling securities / shares.
- A bank facilitates safe keeping of money. The depository facilitates safe keeping of securities / shares.
- A bank holds funds in an account. The depository holds securities / shares in an account.
- The bank transfers funds between accounts on the instructions of account holders. The depository transfers securities / shares between accounts on the instruction of account holders.
- The bank contacts the customer directly. The depository contacts the customer through depository participant.
- 2. <u>Depository Participant (DP)</u>: Depository Participant (DP) is the representative of the depository. Depository participant acts as an intermediary between investors and depositories. An investor has no direct access to the depositories. If an investor desires the services of depository, he has to open an account with depository through depository participant. He has to trade his securities through the depository participant. It has to maintain accounts of securities of each investor. The depository participant gives intimation about holdings from time to time by sending a statement of holding or giving a pass-book. The depository participants have an identity number for identification. At present there are two depositories. They are
  - National Securities Depository Limited (NSDL)
  - Central Depository Services Limited (CDSL)

According to SEBI guidelines financial institutions, banks, stock brokers can act as depository participants.

- 3. <u>Beneficial owner:</u> An investor is known as 'beneficial owner'. He is the person in whose name demat account is opened. His name is recorded with the depository. He enjoys the rights and benefits of a member such as to get dividend, to get bonus shares, to vote at meeting.
- 4. <u>Issuer company:</u> It is a company which makes an issue of securities. It must register itself with a depository.
- 5. <u>Dematerialization</u>: It is the process in which share certificates are converted into electronic form.
- 6. <u>Fungibility:</u> The shares in depositories are fungible. They don't have distinctive number for identification.
- 7. <u>Rematerialization</u>: Rematerialization is the process by which shares in electronic form are reconverted into physical form.
- 8. <u>International Securities Identification Number (ISTIN)</u>: It is an identification number given to the security of an issuer company at the time of admitting such security in the depository system.

### Features

- <u>Transfer of Shares:</u> To transfer the shares, an investor has to fill up Delivery Instruction Slip (DIS) or Receipt Instruction Slip (RIS), to sell or buy securities. These are equivalent to cheque books and contain all the detailed instructions for the transaction to take place smoothly.
- 2. <u>Dematerialization and Rematerialization of Securities</u>: A bank or any other Depository Participant where one has a Demat account can easily convert physical securities into electronic or physical form on request, with the submission of a Demat Request Form and a Remat Request

Form respectively. Dematerialization refers to the conversion of securities into electronic form and conversion of electronic form securities into physical form is called Rematerialization.

- 3. <u>Hypothecation for Loans</u>: Investors can take a loan against securities (shares, debentures, bonds, mutual fund units) that are held in their Demat accounts. The securities are offered as collateral to the lender by the borrower.
- 4. <u>Freeze a Demat Account:</u> As per the need or preference, an investor can freeze his account for a specific time period. Freezing of Demat account is a good option if one does not want any unexpected debits or credits in the accounts.
- 5. <u>Various modes of access</u>: Since Demat accounts are electronic in nature; one can access their Demat account via the internet through Smartphone or personal computer.
- 6. <u>SPEED e facility</u>: Made available by NSDL, this facility allows instruction slips to be sent electronically instead of submitting paper slips to the Depository Participant.

### Demat Account Opening Procedure

- 1. The investor has to fill in the account opening form. The form is in printed form. The form is available with the Depository Participant (DP).
- 2. The investor has to sign DP agreement. It states the rights and Duties of DP, It also states the rights and duties of client (Investor).
- 3. The DP gives the client a unique identification (client DD) in the depository system. The client ID must be quoted in all correspondence with DP. The DP gives Delivery Instruction Slip (DIS) for trading.

### Advantages

- <u>Safety and security:</u> When financial assets were held in physical form, there was always a risk of loss or theft of the share certificates. In a scenario of loss or theft, an investor would have to go through a ton of paperwork and operational challenges to be able to try and recover those assets. And even then there would be no guarantee of recovery. Holding shares in Demat form is safer and more secure than in physical form.
- 2. <u>Faster and smoother settlements</u>: Before dematerialisation, settlement of trade used to take 14 days due to the physical movement of paper shares from the seller to the buyer. But with a Demat account, the settlement cycle has reduced from 14 days to 2 working days, saving the investors' time, effort and energy.
- 3. <u>Reduction of errors:</u> In the world of physical and offline settlements, due to the extent of manual work involved, there were a lot of manual errors as well. One of the biggest advantages of a Demat account is that these errors have been significantly reduced.
- 4. <u>Easy transmission</u>: Due to dematerialisation, in the unfortunate event of the death of a Demat account holder, the ownership of assets held in the Demat account can be quickly transferred to the next of kin. This is possible by either opening a joint Demat account or by adding the next of kin as a nominee to the Demat account. This was not possible when shares were held in physical form since the legal heirs had to go through too much effort to claim rights on the financial assets of the deceased Demat account holder.
- 5. <u>Better liquidity and monetisation</u>: Beneficial owner can easily liquidate i.e. sell, or take a loan against shares, mutual funds etc if you are holding these financial assets in a dematerialised form. Easy liquidation and monetisation is not possible when assets are held in physical form.

- 6. <u>Elimination of odd lot problems:</u> Physical shares used to be sold in lots but with the introduction of Demat accounts, we can buy and sell even a single share.
- 7. <u>Yields and returns v/s physical assets</u>: Demat accounts also help you hold physical assets in dematerialised form.
- 8. One stop storage for all assets: Demat account not only stores your shares but also stores all your financial assets such as debentures, bonds, exchange-traded funds, unit linked insurance policies etc. An important advantage of a Demat account is that all the assets are available under one roof, which makes for easy maintenance and tracking. It is also helpful while filing taxes as all your records are maintained in one place.
- Simplified accounting and management: When financial assets are held in Demat form, all transactions get auto accounted for by the depository participant. This makes reconciliation and management of accounts extremely simple.
- 10. <u>Central point for updating information</u>: Earlier, any change in address, contact details or nominee details had to be intimated to multiple companies. But with a Demat account, you can simply inform your depository participant i.e broker of the change in KYC records and the same will be rectified across all Demat accounts.

### Disadvantages

- 1. Trading in securities may become uncontrolled in case of dematerialized securities.
- 2. Multiple regulatory frameworks have to be conformed to, including the Depositories Act, Regulations and the various Bye-Laws of various depositories.
- 3. There is no provision to close a demat account, which is having illiquid shares. The investor cannot close the account and he and his successors have to go on paying the charges to the participant, like annual folio charges etc.
- 4. After liquidating the holdings, many Indian investors don't close their DP account. They are unaware that DPs charge even on dormant accounts.
- <u>Cost associated with Demat account</u>: One of the main disadvantages of a Demat account is the cost associated with opening and operating a Demat account. Demat account costs include account opening charges, transaction charges, custodian charges and annual maintenance charges.
- 6. <u>Stock broker supervision or dishonest brokers:</u> For dematerialized securities, the role of key market players such as stock-brokers needs to be supervised as they have the capability of manipulating the market.
- 7. <u>Share trading at high frequencies:</u> With the dematerialization of shares, trading operations in the market have become faster and simply done with a click online. This compels shareholders/investors to track shares easily online, which may seem like an advantage. However, it also forces the habit of short-term trading, making you miss out on fruitful long-run investment opportunities.
- Additional contracts: Agreements are entered at various levels in the process of dematerialization. This may often prove to be complex process from the investor's point of view. These may cause worries to the investor.
- 9. <u>Tech savvy or technology savvy:</u> In order to trade, evaluate the share market, access your demat account, etc, we need to go online and have knowledge about basic computer operations that

facilitate you to manage your portfolio. People who are not familiar with computer operations find it extremely difficult to operate a demat account online.

Basis	Bank Account	Demat Account	
Form of holding/deposits	Funds	Securities	
Used for	Safe keeping of money Safe keeping of secutities		
Facilitates	Transfer of money (without actually handling money)	Transfer of shares (without actually handling shares)	
Where to open	A bank of choice	A Depository Participant	
Requirement of PAN number	Not mandatory	Mandatory (Effective from April 01, 2006)	
Interest accrual oh holdings	Interest income is subject to the applicable rate of interest	No interest accruals on securities held in demat account	
Minimum balance	Maintenance is specified for certain bank accounts	No such requirements	
Either or survivor facility	Available	Not available	

### Difference between Bank Account and Demat Account

### **Unified Payments Interface (UPI)**

<u>Meaning</u>: Unified Payments Interface is an instant real-time payment system developed by National Payments Corporation of India facilitating inters bank transactions. In this Virtual Payment Address (VPA) is used to transact instead of IFSC code and account number.

### Process

- Step 1: Download and Install app from Google Play store/Apple Store.
- Step 2: Select preferred language.
- <u>Step 3:</u> Select mobile number that is registered with the bank.
- <u>Step 4:</u> A One Time Password (OTP) will be sent to mobile number.
- <u>Step 5:</u> Enter the OTP and Login by setting an application password.
- Step 6: Select a bank and add the bank details
- Step 7: Set UPI PIN by providing last 6 digits of debit card and expiry date of debit card.
- <u>Step 8:</u> Visit Profile option and set virtual payment address (VPA)
- Step 9: Use app for sending and receiving money.

### Advantages

- 1. <u>Secure payment:</u> Unified Payments Interface is the safest and secured medium of payment to transfer money.
- 2. <u>No charges or transaction is free:</u> Payment through UPI will not have any charge as this is completely free as notified by the Government of India. If we pay by IMPS or NEFT in the same way, we have to pay some money in the form of a tax but there is no such thing in the UPI payment. No fee will be charged for making payments through UPI.
- 3. <u>Instant transfer and round the clock:</u> You can make payments or transfer funds instantly with UPI 24×7. It is faster than both NEFT and IMPS. While NEFT can take up to 12 hours for money

transfer, IMPS has at least 30 minutes waiting period for IMPS registration. However, UPI is available instantly.

- 4. <u>Universal or multiple choices:</u> A single UPI app can be used for different bank accounts. We simply need to link our multiple bank accounts to our UPI-based application. We can use any bank account to make payments because all the accounts can be accessed from a single place.
- 5. <u>Easy to use:</u> The UPI payment is very simple, with the help of this, we can send money quickly and easily to another's account.
- 6. <u>Cash back offers:</u> If we make payment through the Unified Payments Interface, we are given more cash back benefits when compared to the net banking apps.
- 7. <u>Automated payments:</u> It also provides a "Pay Request" facility. In this feature, a request is sent to another person requesting for payment. The other person just need to approve the request and the amount is automatically debited from the account.
- No need to spend time in searching for IFSC code, typing username and other details for adding the payee.

### Disadvantages

- <u>Transaction limit:</u> In case of UPI there is transaction limit which varies from bank to bank but in the majority of banks, it is not more than 1 lakh while in case of other modes of transfer like internet banking, RTGS there is no limit and an individual can transfer any amount which he or she wants. Hence in simple words, UPI is ideal for smaller fund transfer, when an amount is high than other modes of online transfer are preferable.
- <u>Requirement of internet and smartphone:</u> Since this is a new way of fund transfer many people are reluctant to use because of unknown fear associated with new things and also using smart phone and virtual address for funds transfer will be out of question for majority of the population of the country as majority of the population still do not have internet and smart phone which is necessary for transacting through UPI.
- 3. <u>Difficult to Convince the Customers:</u> It is difficult to convince the customer to install the bank application in the mobile for Unified Payment Interface as the customer are afraid of online fraud and for them, terms like virtual address sound very technical and they will not even listen about the benefits of Unified Payment Interface.
- 4. It does not work on the slow of the internet.
- 5. UPI is a very fast and safe medium, but sometimes it takes a lot of time to send the payment after the bank's server down.

(NOTE: Process, Advantages and Disadvantages of UPI will be same for Google pay, BHIM, Paytm and PhonePe)

<u>Google pay:</u> Google pay is a payment app to send and receive money to anyone. Google pay app introduced in 2011. Google Pay, a digital wallet app introduced in 2018, now Google Wallet.

#### Features

- 1. <u>Send Money:</u> Using this option, user can send money to anyone using Virtual Payment Address (VPA), Account no & IFSC and QR Scan.
- <u>Request Money:</u> Using this option, user can collect money by entering Virtual Payment Address (VPA).

- 3. Scan & Pay: Using this option, user can pay by scanning the QR code.
- 4. <u>Transactions</u>: Using this option, user can check transaction history and also pending UPI collect requests (if any) and approve or reject. User can raise complaint for the declined transactions by clicking on Report issue in transactions.
- 5. <u>Profile:</u> Using this option, user can view the static QR code and Payment addresses created. User can also share the QR code through various messenger applications like WhatsApp, Email etc. available on phone and can also download the QR code.
- 6. Bank Account: Using this option, user can see the balance of bank account.
- 7. <u>Instant transactions directly:</u> Transactions made through the app are simple and instant. Transactions are made directly to and from user bank account.
- 8. <u>Safety and security:</u> Transactions made through the app are safe and secure and are protected by a multi-layered security with 24x7 safe protection from frauds.
- 9. <u>Pay Utility Bills:</u> Apart from sending and receiving the money, user can use this app for paying utility bills like electricity, gas, water, property tax, insurance bill, DTH recharge and many others. User can even pay for a landline, mobile, and broadband.
- 10. <u>Multiple Payment Options</u>: Google Pay allows users to make transactions through five different methods Cash Mode, phone number, account number, UPI credentials and QR code.

(NOTE: Features of Google pay will be same for UPI, BHIM, Paytm and PhonePe)

**Bharat Interface for Money (BHIM):** It is digital payment method that allows users to make various transactions such as sending and requesting money with a virtual payment address on a real time basis. This application was developed by National Payment Corporation of India (NPCI) and was launched on 30<sup>th</sup> December by Prime Minister Modi.

**Paytm:** Paytm stands for Pay through mobile and it is India's largest mobile payments and commerce platform. It was founded in 2010 by Vijay Shekhar Sharma under One97 Communications.

**PhonePe:** PhonePe is an Indian digital payments and financial technology company headquartered in Bengaluru, Karnataka, India. PhonePe was founded in December 2015, by Sameer Nigam, Rahul Chari and Burzin Engineer. The PhonePe app, based on the Unified Payments Interface (UPI), went live in August 2016. It is owned by Flipkart, a subsidiary of Walmart.

### **Assignment Questions**

### Section A

- 1. What is banking innovation, Basel norms, Cryptocurrency
- 2. Expand EFT, DEMAT, RTGS, NEFT
- 3. Name any two e-banking services, advantages of e-wallet
- 4. Give the importance of Basel norm III.

### Section B

1. Write a note BHIM, UPI, e-Wallet

### Section C

1. Basel norms, Demat account, Any type of EFT, Mobile banking (NOTE: Other concepts can also be asked {Section A,B,C})