

# **A STUDY ON EFFECTIVENESS OF ONLINE BANKING DURING PANDEMIC**

Submitted in partial fulfilment of the requirements for the award of

**Master of Business Administration**

By

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**SCHOOL OF BUSINESS ADMINISTRATION**

## **SATHYABAMA**

INSTITUTE OF SCIENCE AND TECHNOLOGY  
(DEEMED TO BE UNIVERSITY)

Accredited with grade "A" by NAAC | 12B status by UGC | approved by AICTE  
JEPPIAAR NAGAR, RAGIV GANDHI SALAI, CHENNAI - 600119,

**APRIL - 2021**



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## **SCHOOL OF BUSINESS ADMINISTRATION**

### **BONAFIDE CERTIFICATE**

This is to certify that this Project report is the bonafide work of **Shanmugapriya.K (39410194)** who have done the project work entitled **"A Study on the Effectiveness of Online banking during Pandemic"** under my supervision from January 2021 to March 2021.

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Submitted for Viva voce Examination held on \_\_\_\_\_

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## **DECLARATION**

I **SHANMUGAPRIYA.K (39410194)** hereby declare that the Project Report entitled **“A Study on the Effectiveness of Online banking During Pandemic at Chennai”** done by me under the guidance of Dr. S. UMAMAHESWARI at Banking sector, Chennai is submitted in partial fulfilment of the requirements for the award of Master of Business Administration degree.

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**PLACE :**

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**K.SHANMUGAPRIYA**

# **A STUDY ON THE EFFECTIVENESS OF ONLINE BANKING DURING PANDEMIC**

## **ABSTRACT**

Banking sector in India has played and been playing a major and a crucial role in socio-economic progress and this is evident since the period of independence. Banking sector is the heart as well as soul of an economy for any country. It is the most vital pillar for any financial sector and plays a major role in the economic development of the country. In order to eradicate COVID-19 Pandemic, Indian Government announced complete lockdown in the country starting on March, 2020 and the same was extended to May, 2020 in the second phase. The Banking and Non-banking finance companies (NBFCs) which are the backbone of India's economy are not exception to the above though the lockdown was necessary and inevitable so as to prevent the rapid spread of Novel Corona virus and to save lives of people of the country; it is going to affect the various sectors of our economy in a larger sense.. People can protect themselves by this pandemic by the way of maintaining social distance. But the basic needs like food and medicine are vital for leading their life and in it the transfer of cash plays an inevitable role. Internet banking can make the transaction through an electronic basis without the exchange of any physical commodity with maintaining social distance. This study is an attempt to assess the contribution and impact created by online banking due to lockdown which has resulted in closure of all commercial, educational, public and private institutions and suspension of all means of transportation, etc. The conclusion is based on the views expressed by various groups including economists, financial institutions like International Monetary Fund, World Bank and consulting firms. Our paper seeks to analyse the effectiveness of online banking sector in India during and post pandemic - Covid-19. This was done with the help of convenience sampling methods and their responses were summarised using graphs for the purpose of better understanding.

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# **CHAPTER-1**

## **INTRODUCTION**

### **1.1 INTRODUCTION**

Advanced technology allows the banks to enhance its operations with cost cutting effectively and efficiently in order to handle daily banking operations and affairs through online banking channel. Customers are facilitated by reducing their face to face visits in banks and doing their transactions through internet or ATM machines instead of physically visiting the bank branches. The purpose of this study is to investigate the effective factors that facilitate the usage of e-banking services for customers.

Banking industry is one among the major users of information and communication technologies in business life. Since new millennium, billions of dollars have been spent in the process of developing online banking infrastructures; therefore the internet banking has transformed traditional method of banking practice and looking on online services as next gen technology in many countries. Today, through online banking, customers could conduct a vast range of banking services electronically as and when required.

By offering online banking services, traditional financial institutions are seeking to offer lower operational costs, improve consumer's banking services, retain their consumers and expand the share of customer. In the new improved banking environment, internet banking is increasingly managed as an operational activity and a vital component of a multi channel strategy. In India traditional banks have the main part for providing the financial services as well as electronic method is still improving in a positive slope. Majority of polished banks now offer some form of online services which are running to expect more customers in the subsequent years. Internet users and consumers in more developed countries reflect similar traits, and there is a chain link between the decision to open an online banking account and the level of security of the online transactions. The advancement of technology especially the internet has

changed the method of how organizations run their business. Now online banking has the revolution of internet been more visible than in the banking and financial services industry.

Many firms adapts rapidly to the changes in internet, information and technology by improving their own business efficiency and that of the service quality through new applications in internet, and attracting new customers. Banks have become increasingly interested and concerned about the online banking services and are seeking the methods to provide a high quality service that exactly fulfills the requirements and preferences of their customers. They are also developing differentiated service quality strategies in order to effectively retain their competitiveness and also to obtain a competitive advantage in this rapidly growing virtual market, and especially given the deep impact of the internet on day to day life during the past few years and they apparently assured the growth of online banking in the financial service industry. Service quality has been identified as an overall evaluation similar to that of attitude. Expected service quality is found to be the consumer's desire; and perceived service quality indicates the consumer perceptions of a firm's performance in the process of providing a service. Online banking has been called in different names such as internet banking, cyber banking, virtual banking, electronic banking, and e-banking. And hence if the system that does not help people performs their jobs is not said to be likely to be received favor. As online banking continues to develop and grow, banks need to meet their consumer's demands in order to create a product and service that better serves to the customer. In this research, if the bank enhances online bank user's productivity, it is more likely to be positively enhancing the customer life service.

## **1.2 INDUSTRY PROFILE**

### **1.2.1 INDIAN BANKING INDUSTRY**

Before touching the real issue of the study, let me first give a background of the Indian Banking sector. A bank is an institution which has a primary function of to accept the deposits and to lend money to the needful individuals, businesses, and

governments and others. Banks are considered to be the trustworthy thing around the world. When any of the individual deposits money in the bank, it doesn't matter what is the amount. It is a fact that the individual knows that the money will be safe in the bank as compared to anywhere else. Besides this, a bank provides a numerous services like loan facilities, fixed deposit schemes, debit card and credit card facilities, and many more. The Indian banking industry which is nearly two hundred years old that has been expanding and modernizing since the introduction of reforms in 1991. Now, this banking industry has evolved much more drastically into which the current size of the banking industry is worth INR 81 trillion.

A study by KPMG (2017) made a prediction that the Indian Banking sector is positively heading towards to becoming the fifth largest banking industry in the world in year of 2020 and third largest by the year 2025. There are three wide types of banks in India, according to the ownership pattern. They are: public owned or state owned, private banks, and foreign banks. In India currently there are total of 34 banks, out of which 12 are public owned banks and the rest 22 are private sector banks. State Bank of India along with six other associates was constituted under separates SBI Act 1955 and SBI Subsidiary Banks Act 1959, is acknowledged as separate group of the Scheduled Banks. Ten nationalized banks, and seven SBI and associates form the Public Sector Banks (PSB), and with over 50% of government ownership. Public sector banks control around 2/3<sup>rd</sup> of the total business. The banks have a dominant position in the India's economy and its major contributor towards employment in India. Unfortunately, many performance indicators of India's banks have been reflecting downtrend or negative situation for last five years. This situation holds truer in case of public sector banks as they seems to be more inefficient compared to their peer group. Public sector banks account for 80% of non-performing assets that carrying a bad debt book of INR Rs 7.4 trillion, and also it has reported a huge loss, when private sector peers reported profits in the year 2019.

In the modern sense the banking sector has been originated in the last decades of the eighteenth century. Among that the first bank is the Bank of Hindustan, which was established in the year 1770 and was liquidated between the years 1829–32.

And the General Bank of India was established in the year 1786 but failed in the year 1791.

The largest bank as well as the oldest which is still in existence is the State Bank of India. The state bank of India was originated as the Bank of Calcutta in the year June 1806. In year 1809 the bank was renamed as Bank of Bengal. This bank was one of the three banks that were funded by presidency government. The other two banks were Bank of Bombay in year 1840 and the Bank of Madras in year 1843. The three banks were merged in 1921 to form the Imperial Bank of India, which upon India's independence, became the State Bank of India in 1955. For many years the presidency banks had acted as quasi-central banks, as did their successors, until the Reserve Bank of India was established in 1935, under the Reserve Bank of India Act, 1934.

In 1960, the State Banks of India was given control of eight state-associated banks under the State Bank of India subsidiary Banks Act, 1959. These are now called as its associate banks. In the year 1969 the Indian government nationalized fourteen major private banks; one of the big banks was Bank of India. In 1978, 6 more private banks were nationalized. These nationalized banks are the majority of lenders in the Indian economy. They dominate the banking sector because of their large size and widespread networks.

The Indian banking sector is broadly classified into scheduled and non-scheduled banks. The scheduled banks are those included under the 2nd Schedule of the Reserve Bank of India Act, 1934. The scheduled banks are further classified into: nationalized banks; State Bank of India and its associates; Regional Rural Banks (RRBs); foreign banks; and other Indian private sector banks. The term commercial banks refer to both scheduled and non-scheduled commercial banks regulated under the Banking Regulation Act, 1949.

In general senses banking industry in India is fairly mature in terms of supply, product range and reach-even though reaches in rural India and to the poor still it remains as a challenge. The government has been developing initiatives to address this through the State Bank of India expanding its branch network and also through the National

Bank for Agriculture and Rural Development (NABARD) with facilities like microfinance.

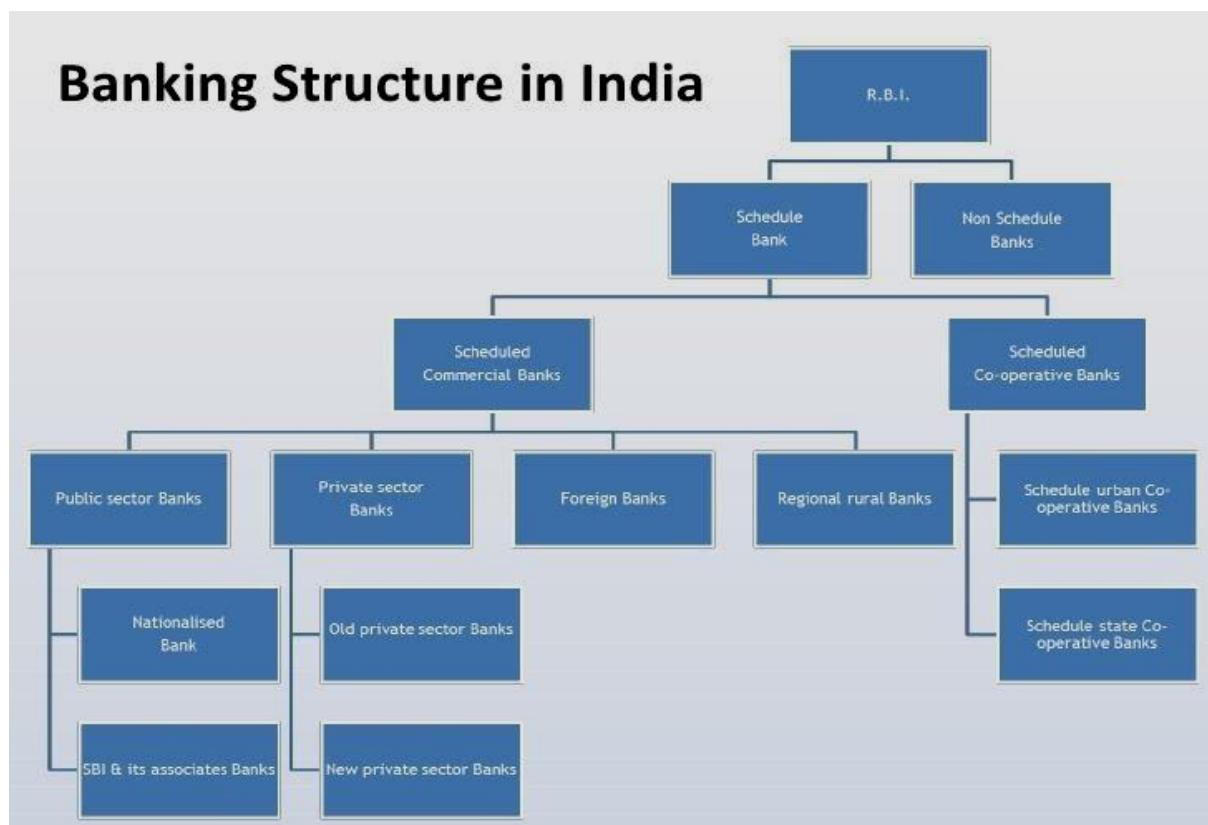


Fig 1- structure of banking in India

### 1.2.2 Market Size

The Indian banking system consists of 12 public sector banks, 22 private sector banks, 46 foreign banks, 56 regional rural banks, 1485 urban cooperative banks and 96,000 rural cooperative banks in addition to cooperative credit institutions. As of September 2020, the total number of ATMs in India increased to 210,049 and is further expected to increase to 407,000 by 2021.

Assets of public sector banks stood at Rs. 107.83 lakh crore (US\$ 1.52 trillion) in FY20.

During FY16-FY20, bank credit grew at a CAGR of 3.57%. As of FY20, total credit extended surged to US\$ 1,698.97 billion.

During FY16-FY20, deposits grew at a CAGR of 13.93% and reached US\$ 1.93 trillion by FY20. Credit to non-food industries stood at Rs. 103.46 trillion (US\$ 1.40 trillion) as of November 20, 2020.

### **1.2.3CURRENT ERA IN BANKING**

The Indian banking sector is broadly classified into scheduled banks and non-scheduled banks. All banks included in the Second Schedule to the Reserve Bank of India Act, 1934 are Scheduled Banks. These banks comprise Scheduled Commercial Banks and Scheduled Co-operative Banks. Scheduled Co-operative Banks consist of Scheduled State Co-operative Banks and Scheduled Urban Cooperative Banks. Scheduled Commercial Banks in India are categorized into five different groups according to their ownership and/or nature of operation:

- State Bank of India and its Associates
- Nationalized Banks
- Private Sector Banks
- Foreign Banks
- Regional Rural Banks
- Small Finance Banks

In the bank group-wise classification, IDBI Bank Ltd. is included in the category of other public sector bank.

#### ***Payment banks***

Payments bank is a new model of banks conceptualized by the Reserve Bank of India (RBI). These banks can accept a restricted deposit, which is currently limited to 1 lakh per customer. These banks may not issue loans or credit cards, but may offer oath current and savings accounts. Payments banks may issue ATM and debit cards, and offer net-banking and mobile-banking. The banks will be licensed as payments banks under Section 22 of the Banking Regulation Act, 1949, and will be registered as public limited company under the Companies Act, 2013.

### ***Small finance bank***

To further the objective of financial inclusion, the RBI granted approval in 2016 to ten entities to set up small finance banks. Since then, all ten have received the necessary licenses. A small finance bank is a niche type of bank to cater to the needs of people who traditionally have not used scheduled banks. Each of these banks is to open at least 25% of its branches in areas that do not have any other bank branches (unbanked regions). A small finance bank should hold 75% of its net credits in loans to firms in priority sector lending, and 50% of the loans in its portfolio must be less than 25 lakh .

### ***Other private sector banks:***

The private-sector banks in India represent part of the Indian banking sector that is made up of private and public sector banks. The "private-sector banks" are banks where greater parts of share or equity are not held by the government but by private share holders.

Banking in India has been dominated by public sector banks (since the 1969) when all major banks were nationalized by the Indian government. However, since liberalization in government banking policy in the 1990s, old and new private sector banks have re-emerged. They have grown faster & bigger over the two decades since liberalization using the latest technology, providing contemporary innovations and monetary tools and techniques. The private sector banks are split into two groups by financial regulators in India, old and new. The old private sector banks existed prior to the nationalization in 1969 and kept their independence because they were either too small or specialist to be included in nationalization. The new private sector banks are those that have gained their banking license since the liberalization in the 1990s.

The Nedungadi Bank was the first private sector bank in India which was founded in 1899 by Rao Bahadur T.M. Kozhikode, Kerala.

### **1.2.4 INVESTMENTS/DEVELOPMENTS**

Key investments and developments in India's banking industry include:

- On November 6, 2020, WhatsApp started UPI payments service in India on receiving the National Payments Corporation of India (NPCI) approval to 'Go Live' on UPI in a graded manner.
- In October 2020, HDFC Bank and Apollo Hospitals partnered to launch the 'Healthy Life Programme', a holistic healthcare solution that makes healthy living accessible and affordable on Apollo's digital platform.
- In 2019, banking and financial services witnessed 32 M&A (merger and acquisition) activities worth US\$ 1.72 billion.
- In March 2020, State Bank of India (SBI), India's largest lender, raised US\$ 100 million in green bonds through private placement.
- In February 2020, the Cabinet Committee on Economic Affairs gave its approval for continuation of the process of recapitalization of Regional Rural Banks (RRBs) by providing minimum regulatory capital to RRBs for another year beyond 2019-20 - till 2020-21 to those RRBs which are unable to maintain minimum Capital to Risk weighted Assets Ratio (CRAR) of 9% as per the regulatory norms prescribed by RBI.
- In October 2019, Department of Post launched the mobile banking facility for all post office savings account holders of CBS (core banking solutions) post office.
- Deposits under Pradhan Mantri Jan Dhan Yojana (PMJDY) stood at Rs. 1.06 lakh crore (US\$ 15.17 billion).
- In October 2019, Government e-Marketplace (GeM) signed a memorandum of understanding (MoU) with Union Bank of India to facilitate a cashless, paperless and transparent payment system for an array of services.
- In August 2019, the Government announced major mergers of public sector banks, which included United Bank of India and Oriental Bank of Commerce to be merged with Punjab National Bank, Allahabad Bank to be amalgamated with Indian Bank and Andhra Bank and Corporation Bank to be consolidated with Union Bank of India.

- The NPAs (Non-Performing Assets) of commercial banks recorded a recovery of Rs. 400,000 crore (US\$ 57.23 billion) in the last four years including record recovery of Rs. 156,746 crore (US\$ 22.42 billion) in FY19.
- Allahabad Bank's board approved the merger with Indian bank for the consolidation of 10 state-run banks into the large-scale lenders.
- The total equity funding of microfinance sector grew at 42 y-o-y to Rs. 14,206 crore (US\$ 2.03 billion) in 2018-19.

### **1.2.5 EMERGENCE OF ONLINE BANKING-**

The first known deployment of home computer banking to consumers came in December 1980 at United American Bank, a community bank headquartered in Knoxville, Tenn. United American partnered with Radio Shack to produce a secure custom modem for its TRS-80 computer that would allow bank customers to access account information securely. Services available in its first year included bill pay, account balance checks, and loan applications, as well as game access, budget and tax calculators and daily newspapers. Thousands of customers paid \$25–30 per month for the service.

Large banks, many working on parallel tracks to United American, followed in 1981 when four of New York's major banks (Citibank, Chase Manhattan, Chemical, and Manufacturers Hanover) offered home banking services<sup>[2][3][4]</sup> using the videotex system. Because of the commercial failure of videotex, these banking services never became popular except in France (where the use of videotex (Minitel) was subsidized by the telecom provider) and the UK, where the Prestel system was used.

The developers of United American Bank's first-to-market computer banking system aimed to license it nationally, but they were overtaken by competitors when United American failed in 1983 as a result of loan fraud on the part of bank owner Jake Butcher, the 1978 Tennessee Democratic nominee for governor and promoter of the 1982 Knoxville World's Fair. First Tennessee Bank, which purchased the failed bank, did not attempt to develop or commercialize the computer banking platform.

### **1.2.6 Digital Banking**

Ideally, banks are boring yet important part of our lives. Boring because one has to wait for long hours in queue just to get cash or transfer money. If you hit your rewind button, then, about 30 years ago, banking systems dealt with a lot of paperwork. Computers and the internet were not advanced enough to run quickly. A lot has changed to date but a huge push to go digital came from the COVID-19 pandemic. This outbreak changed the shape of the entire banking industry by making it go digital.

In simple terms, digital banking means converting all traditional banking services to online or digital mode. These services could be deposits, transfers, withdrawals, applying for various financial services, account handling, loan management, and bill payments. Digital banking eliminates the need for paperwork such as demand drafts, cashing cheques, or pay-in slips. One has the complete liberty to perform all banking activities 24/7 without literally going to the bank. Digital banking facilities are accessible with a stable internet connection and any electronic gadget like mobiles, laptops, or tabs.

Customers' preference for banks with digital banking options forced several small and large banks to go digital. Banks didn't expect that consumers would opt for online banking services at a faster pace, and hence creating digital banking provisions at an accelerated rate in all financial institutions for clients became a necessity. Deloitte's 2019 banking and capital market outlook suggests that banks are trying to match consumers' expectations regarding banking by turning towards digital banking services. Moreover, 'create digital capability' was cited by 28% of banks as their foremost initiative. Almost 50% of the banks are making digital banking their top priority.

According to research by RFI Group, the financial services insights provider, 71 per cent of consumers globally are now using digital banking channels weekly – a 3 per cent year on year increase – while daily use increased 6 per cent in the same period. In the UK – where 73 per cent of consumers are using digital banking channels

weekly, above the global average – there was also a sharp rise in mobile banking use monthly from 52 to 57 per cent of people between 2019 and 2020.

### **1.2.7 Internet Banking Mechanism:**

Online Banking, E- banking, electronic banking, net banking or banking over the internet are the buzzwords of business today. They are commonly used in the banking industry. It is the information technology which has revolutionized the way of doing banking at local, national and international level. It is cutting edge technology, a new business paradigm. Electronic banking has many names like e banking, virtual banking, online banking, or internet banking. It is simply the use of electronic and telecommunications network for delivering various banking products and services. Through e-banking, a customer can access his account and conduct many transactions using his computer or mobile phone.

Syed Abdul Mannan states that “Electronic banking is an umbrella term for the process by which a customer may perform banking transaction electronically without visiting a brick and mortar institution.”

Raghunath desai states that the term electronic banking as used refers to any banking activity accessed by electronic means.

Electronic banking can be used for retail banking and business to business (B2B) transactions, as well as for facilitating large- dollar transfers. Equally important, electronic banking is a worldwide phenomenon. As the term is used here, it involves transactions. Some institutions only offer websites that provide information about services offered but do not allow for transactions. These would not be covered under the definition of electronic banking. However, websites that are transactional are considered under electronic banking.

Electronic banking and the internet in general are forcing a shift in the way banks and other businesses organize and the way they think of themselves. A shift is taking place from vertical integration to virtual integration. Banks and other financial intermediaries must realize that they are in the financial information industry. The

internet makes it possible to bring both customers and suppliers together to share critical business information.

To cope with the pressure of growing competition, Indian commercial banks have adopted several initiatives and e-banking is one of them. The competition has been especially tough for the public sector banks, as the newly established private sector and foreign banks are leaders in adoption of e-banking. Indian Banks offer to their customers following e-banking products and services:

- Automated Teller Machines (ATMs)
- Internet Banking
- Mobile Banking
- Phone Banking
- Telebanking
- Electronic Clearing Services
- Electronic Clearing Cards
- Smart Cards
- Door Step Banking
- Electronic Fund Transfer

#### **1.2.8 TYPES OF ONLINE TRANSACTIONS-**

The Cashless India has stated the following as different kinds of online transactions taking place in Indian banks.

##### ***A) National Electronic Fund Transfer (NEFT)***

National Electronic Funds Transfer (NEFT) is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms and corporates 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. Individuals, firms or corporate maintaining accounts with a bank branch can transfer funds using NEFT. Even such individuals who do not have a bank account (walk-in customers) can also deposit cash at the NEFT-enabled branches with instructions to transfer funds using NEFT. However, such cash

remittances will be restricted to a maximum of Rs.50,000/- per transaction. NEFT, thus, facilitates originators or remitters to initiate funds transfer transactions even without having a bank account. Presently, NEFT operates in hourly batches - there are twelve settlements from 8 am to 7 pm on week days (Monday through Friday) and six settlements from 8 am to 1 pm on Saturdays.

### ***B) Real Time Gross Settlement (RTGS)***

RTGS is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time; 'Gross Settlement' means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis). Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable. The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is 2 lakh. There is no upper ceiling for RTGS transactions. The RTGS service for customer's transactions is available to banks from 9.00 hours to 16.30 hours on week days and from 9.00 hours to 14:00 hours on Saturdays for settlement at the RBI end. However, the timings that the banks follow may vary depending on the customer timings of the bank branches.

### ***c) Electronic Clearing System (ECS)***

ECS is an alternative method for effecting payment transactions in respect of the utility-bill-payments such as telephone bills, electricity bills, insurance premia, card payments and loan repayments, etc., which would obviate the need for issuing and handling paper instruments and thereby facilitate improved customer service by banks / companies / corporations / government departments, etc., collecting / receiving the payments.

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

IMPS offer an instant, 24X7, interbank electronic fund transfer service through mobile phones. IMPS is an emphatic tool to transfer money instantly within banks across India through mobile, internet and ATM which is not only safe but also economical both in financial and non-financial perspectives

### **1.2.8 Mobile Commerce and Banking**

There is no agreed upon definition that has been put forward to define mobile banking in the extant literature. Nonetheless, Shaikh and Karjaluoto argue that accessing banking or financial services from a laptop should not be considered m-banking, since the user interface is similar to that of desktop PCs. According to Touchaie and Hashim .m-banking is the act of conducting monetary transactions in a mobile environment, using mobile or wireless network and mobile devices such as smart phones and tablets. Mobile payments are considered a subset of mobile banking. Houghton considered paying for your car fuel or parkade tickets through vending machine via Smartphone's credits as a payment method to be an example of m-commerce. Some authors refer to it as cell phone banking. Mlitwa and Tshetsha described it as a convenient banking channel to manage finances using a mobile phone. According to Al-jabri and Sohail, mobile banking services allow customers to take full advantage of the latest technology which enables them to: check account details; view a mini-statement; transfer funds; pay credit cards and loan installments and place remittances to beneficiaries in local banks or abroad, to highlight a few.

Mobile banking technology offers a variety of possible products and services that banks can avail to consumers. Among other services, M-banking systems offer a variety of financial features such as micropayments to merchants, bill-payments to utilities, person to person (P2P) transfers, business to business (B2B) transfers, business to person (B2P) transfers and long-distance remittances. Khan,Varshney and Qadeer suggested that it is mobile commerce (m-commerce), they continued to define it as buying and selling of goods and services using wireless technology. Khan, Varshney and Qadeer further identified mobile banking as one of the products and services available in the mobile commerce. Thus, mobile financial services fall under this umbrella such as mobile personal banking and payments. Mobile banking is

currently available via SMS technology and WAP-enabled phones. The capability to use banking and other m-commerce applications with such a small device effectively with good interaction is a critical success factor of mobile buying and selling. Mobility is often a challenge for a number of elderly individuals. Thus mobile shopping and banking can be beneficial to this cohort who would then essentially not have to leave their homes or comfort to perform financial transactions.

Mobile banking seems to offer several possibilities to either increase revenues or reduce costs .however the usage rate remains low, except in developed countries where it is heavily adopted. For developing countries, mobile banking serves as a vital interface between consumers and the banks by permitting money transfer, saving and investment opportunities. Mobile banking is further described as a contributor towards financial inclusion for such countries with a tele-density of 70%. The provision of mobile banking is increasing but awareness of the service by banking consumers and the convenience that it entails requires more effort on the part of banking services providers.

HSBC states that, “with the growing popularity of instant messages and demand for 24/7 banking services, conversational banking involving AI chat bots enables banks to engage with customers more promptly and effectively. At HSBC, we held 10 million chat conversations in 2019 across personal banking – and we expect to reach 10 million chat conversations a month by 2024”

M-banking dates back to the late 1990s where it was first launched in Germany. Primary research on mobile banking was conducted in the early 2000s. The adoption of mobile banking and related services in developing economies has been studied over the past years in countries such as: South Africa .India and in continents such as Asia. However, studies about the elderly behavior on mobile banking and commerce are rare; a few studies have examined ease of use and extrinsic and intrinsic motivations for the usage of mobile applications. Convenience and efficiency are top mobile banking benefits cited in the literature.

With over half (57 per cent) of consumers now preferring internet banking, up from 49 per cent pre-Covid-19 and 55 per cent preferring banking mobile apps compared with

47 per cent previously, the stakes have risen further as the Covid-19 context continues to move consumers towards digital banking.

The Global trade magazine of US trade and business states that the Digital banking reduces a person's bank visits and manual work, along with saving time. The COVID-19 pandemic has accelerated the process of digital banking due to its numerous benefits. Smartphone usage has resulted in an additional surge in digital banking during the COVID-19 pandemic. Moreover, swift transactions, 24/7 banking facilities, and smooth mobile banking have flourished the digital banking industry.

#### **1.2.10The entry of Indian banks into Net Banking**

The Reserve Bank of India has specified the following. Internet banking, as a medium of delivery of banking services and as a strategic tool for business development, has gained wide acceptance internationally and is a fast catching up in India with more and more banks entering the fray. India can be said to be on the threshold of a major banking revolution with net banking having already been unveiled. A recent questionnaire, to which 46 banks responded, has revealed that at present, 11 banks in India are providing Internet banking services at different levels, 22 banks propose to offer Internet banking in near future while the remaining 13 banks have no immediate plans to offer such facility.

At present, the total Internet users in the country are estimated at 9 lakh. However, this is expected to grow exponentially to 90 lakh by 2003. Only about 1% of Internet users did banking online in 1998. This increased to 16.7% in March 2000.\* the growth potential is, therefore, immense. Further incentives provided by banks would dissuade customers from visiting physical branches, and thus get 'hooked' to the convenience of arm-chair banking. The facility of accessing their accounts from anywhere in the world by using a home computer with Internet connection, is particularly fascinating to Non-Resident Indians and High Networth Individuals having multiple bank accounts.

Costs of banking service through the Internet form a fraction of costs through conventional methods. Rough estimates assume teller cost at Re.1 per transaction, ATM transaction cost at 45 paise, phone banking at 35 paise, debit cards at 20 paise and Internet banking at 10 paise per transaction. The cost-conscious banks in the country have therefore actively considered use of the Internet as a channel for providing services. Fully computerized banks, with better management of their customer base are in a stronger position to cross-sell their products through this channel.

#### **1.2.11 PROBLEMS OF E BANKING**

***Difficulties in implementation of global technology:*** There is a need to have an adequate level of infrastructure and human capacity building before the developing countries can adopt global technology for their local requirements. In developing countries, many consumers either do not trust or do not access to the necessary infrastructure to be able to process e-payments.

***Confidentiality, integrity and authentication:*** These three are the very important features of the banking sector and were very successfully managed all over the world before the coming of internet. Communication across an open and thus insecure channel such as the internet might not be the best base for bank-client relations as trust might partially be lost.

***Customer Satisfaction:*** In today's competitive world, satisfaction of customers is a major challenge for the banking sector because customers have alternative choices in various types of services provided by banks.

***Availability of Personnel services:*** In present times, banks are to provide several services like social banking with financial possibilities, selective up gradation, computerization and innovative mechanization, better customer services, effective managerial culture, internal supervision and control, adequate profitability, strong organization culture etc. Therefore, banks must be able to provide complete personnel service to the customers who come with expectations.

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**Handling Technology:** Developing or acquiring the right technology, deploying it optimally and then leveraging it to the maximum extent is essential to achieve and maintain high service and efficiency standards while remaining cost effective and delivering sustainable return to shareholders. Early adopters of technology acquire significant competitive advances Managing technology is therefore, a key challenge for the Indian banking sector.

**Security Risk:** The problem related to the security has become one of the major concerns for banks. A large group of customers refuses to opt for e-banking facilities due to uncertainty and security concerns. Most of internet users are not using internet banking in India because of security concerns. So it's a big challenge for marketers and makes consumers satisfied regarding their security concerns, which may further increase the online banking use.

**Privacy risk:** The risk of disclosing private information & fear of identity theft is one of the major factors that inhibit the consumers while opting for internet banking services. Most of the consumers believe that using online banking services make them vulnerable to identity theft.

**The Trust Factor: Trust** is the biggest hurdle to online banking for most of the customers. Conventional banking is preferred by the customers because of lack of trust on the online security. They have a perception that online transaction is risky due to which frauds can take place

**Customer Awareness:** Awareness among consumers about the e-banking facilities and procedures is still at lower side in Indian scenario. Banks are not able to

disseminate proper information about the use, benefits and facility of internet banking. Less awareness of new technologies and their benefits is among one of the most ranked barrier in the development of e-banking.

***Less Internet Penetration in Indian Context:*** The internet banking channel has evolved over the years. The knowledge and availability of internet is still a one of the biggest challenges that prevails in Indian context. So the penetration of internet and knowledge related to internet are major hurdles.

#### **1.2.12 Prospects of e-banking**

Despite of various problems that are prevailing in context with e-banking in India, the following opportunities are motivating the marketers for implementing e-banking:

***Untapped Rural Markets:*** Contributing to 70% of the total population in India is a largely untapped market for banking sector. In all urban areas banking services entered but only few big villages have the banks entered. So that the banks must reach the remaining villages because majority of the Indians still living in rural areas.

***Multiple Channels:*** Banks can offer so many channels to access their banking and other services such as ATM, Local branches, Telephone/mobile banking, video banking etc. to increase the banking business.

***Worthy Customer Service:*** Worthy customer services are the best brand ambassador for any bank for growing its business. Every engagement with customer is an opportunity to develop a customer faith in the bank. While increasing competition customer services has become the backbone for judging the performance of banks.

***Internet Banking:*** It is clear that online finance will pickup and there will be increasing convergence in terms of product offerings banking services, share trading, insurance, loans, based on the data warehousing and data mining technologies. Anytime anywhere banking will become common and will have to upscale, such up

scaling could include banks launching separate internet banking services apart from traditional banking services.

**Retail Lending:** Recently banks have adopted customer segmentation which has helped in customizing their product folios well. Thus retail lending has become a focus area particularly in respect of financing of consumer durables, housing, automobiles etc., Retail lending has also helped in risks dispersal and in enhancing the earnings of banks with better recovery rates.

**Indian Customers:** The growing Indian banking sector with its strong home country linkages, seek a unique combination of Indian ethnicity and global standards that offers a valuable nice opportunities for Indian banks. The biggest opportunity for the Indian banking sector today is the Indian costumers. Demographic shifts in terms of income level and cultural shifts in terms of life style aspirations are changing the profile of the Indian customer. This is and will be a key driver of economic growth going forward.

**Increasing Internet Users & Computer Literacy:** To use internet banking it is very important or initial requirement that people should have knowledge about internet technology so that they can easily adopt the internet banking services. The fast increasing internet users in India can be a very big opportunity and banking industry should encash this opportunity to attract more internet users to adopt internet banking services.

**Initiatives taken by government agencies for financial literacy:** Financial literacy and education play a crucial role in financial inclusion, and inclusive growth. A study reported that there is significant impact of financial literacy on use of internet banking, If customers are not financially educated they will simply avoid using new online services and not change their traditional way of banking, thus banks will not be able to convert users into their new online banking strategies. Various government institutions like RBI, SEBI, IRDA and various other market players have taken a number of initiatives on financial education. They have prepared a school curriculum along with various topics including internet banking, banking product and services,

net banking to educate the school students, college students, working executives, middle income group, home makers, retired personnel, self help groups etc.

**Competitive Advantage:** The benefit of adopting e-banking provides a competitive advantage to the banks over other players. The implementation of e-banking is beneficial for bank in many ways as it reduces cost to banks , improves customer relation , increases the geographical reach of the bank , etc. The benefits of e- banking have become opportunities for the banks to manage their banking business in a better way.

#### **1.2.13 Benefits of Digital Banking during the COVID-19 Pandemic:**

There is a significant advantage of fund or money transfer as digital banking skips the hassle of issuing demand drafts or cheques. One can simply transfer money from one account to the other without visiting a bank from the safety of their homes. This ensures a low risk of COVID-19 infection and the liberty of transactions anytime and anywhere.

A few notable options for online money transfers are IMPS (Immediate Payment Service), RTGS (Real-Time Gross Settlement), and NEFT (National Electronic Fund Transfer).

Apart from this, one has the luxury of downloading e-bank statements at any point in time. These bank statements can be saved on mobile phones or laptops and can be accessed easily. This prevents the need to visit banks and take printed copies of statements, thus preventing unwanted contact during the COVID-19 pandemic. Moreover, the installation of ATM machines in every nook and corner is aiding people in withdrawing cash, be it day or night.

Bill payments can be smoothly managed with digital banking by simply logging in to your bank account. All kinds of bills such as electricity, phone, gas, and television can be completed via digital banking. Mostly, several banks have auto-debit facility to pay bills automatically whenever issued. For instance, HDFC bank has started a pre-paid mobile recharge facility as part of the digital banking initiative. In addition to this, one

can open a fixed deposit account in seconds, invest in mutual funds, and apply for loans and various insurance policies as well.

The rise in Smartphone usage and the availability of strong network connectivity has paved way for mobile banking systems. Since everyone nowadays possesses a smart phone, one can download apps for transaction purposes. Google Pay, Apple Pay, BHIM, SBI's Yono, Payzapp and many more are gaining popularity amidst the COVID-19 outbreak. For transactions, one just has to scan a QR code or know the phone number of the beneficiary. Mobile banking apps are like mini-digital banks that include all banking services on the go. If at all you have to stop a cheque process, then simply log in to your account and click on update cheque process. Furthermore, one can track credits and debits of the account as banks send SMS or e-mails of transactions. These notifications aid in preventing frauds and one must report them as quickly as possible to the bank authorities. Beyond this, digital banking displays transaction history and any pending payments as well.

#### **1.2.14 FUTURE OF ONLINE BANKING**

You've heard the name *block chain* enough to notice it is becoming increasingly popular, especially when it comes to banking. But what is it exactly? Block chain is a system in which a record of transactions made in a crypto currency is maintained across multiple computers so it functions as a ledger that numerous parties can access at the same time; it can't be altered and is almost impossible to hack thus it operates as a single source of truth.

As far as banking is concerned, fraud reduction would be one of its significant contributions to the sector. Besides its indisputable security aspect, it minimizes the number of intermediaries which could reduce processing costs by billions. It has been speculated that block chain technology will be the end of money as we know it since we'll be using crypto currencies, which can spell the death of traditional banking.

It all sounds incredibly appealing, having all you need online and managing your finances with a click of a button. However, you shouldn't mindlessly throw yourself

into the wonders of cyberspace without being aware of what might happen in a worst-case scenario. In other words, once your sensitive data like your account number are out there, they become a potential hacking target.

Hackers are tirelessly working on bypassing security systems, and it still is a seemingly never-ending game of cat and mouse. Mobile apps can be compromised, and reliability of service is not 100% guaranteed. You never know when a bank's online services might go down. The safest thing to do if you are using online banking is to regularly check for malware, use unique usernames and passwords and avoid checking accounts on a public Wi-Fi. You can never be too careful when it comes to your life savings.

Online banking will grow on you. Who can resist saving precious time by using a mobile app or a computer to do something that would otherwise take forever to complete? Instead of doing your finance-related research on foot marching from bank to bank in order to find the best deal, you'll be sitting at home, sipping coffee and clicking away to compare and contrast all the benefits banks today are competing to offer to you in particular. Being well informed about all the benefits and drawbacks of online banking will help you make the right decision as well as prepare you for all that might occur. Whatever the future may hold, one thing is certain – it will be a better one for sure.

## CHAPTER- 2

### REVIEW OF LITERATURE

**Vikas Kumar and Sanjeev Kumar (2021)** states that the Covid-19 pandemic gave affected the economy of India in a negative way and the effect is also the banking sector and industry in equal manner. The adverse effect of the virus is still immeasurable that is the duration of time span of the virus as well as the depth of the damage is still increasing and such situation will be over only after the pandemic is over. He also states that the government as well as Reserve Bank of India has taken some initiatives to reduce the effect of the virus on the country's economy but it's still not sufficient to handle the situation.

**Inzamam Ul Haq and Tahir Mumtaz Awan(2020)** states that the electronic banking requirements are enhanced in the current circumstances that had a greater influence during the pandemic situation though their traditional banking .however the requirements related to trust factor, safety and security, reliability, design of the website and the customer relationship and support are notable factors. It also stated the analysis of relationship between different dimensions with the satisfaction of customers of electronic banking .it also states that it's identical in banking sector that online means are getting more attraction as the account holders are more aware of online banking. The practice of traditional banking has also been drastically declined during the pandemic period.

**Ashish bagewadi & Devang dhingra (2020)** stated that with the use of effective planning and provisions the Indian banking institutions were able to reduce their overall wastage and damage and they are also trying to recover from the big hit. And the customers practices of online banking and the methods have been changed to a greater extent and the trust in the online banking have also increased in this period the people have started to use internet banking more than visiting the banks personally to get the services. They also mentioned that the infrastructure of the online banking has been improved to meet the user friendly factor in this pandemic.

**G.Parimalarani and M.Rathimeena (2020)** states that there is a significant relationship that is there is a positive relationship between overall customer satisfaction and online banking services. It is proved that the customers of the banking institutions were highly satisfies with the internet banking services and as well as moderately satisfies with the atm services offered during the covid lockdown period. It is also stated that the customers prefers to transfer funds and get other services without entering the bank premises. It is said that the customers are enjoying the benefits that are provided by the banks while accessing other banking institutions during the pandemic situation. They also stated that the bank customers were highly satisfies with the digital banking services during the pandemic situation.

**B.V.Nayana and Ms.Susheela (2020)** states that inadequate knowledge, lack of infrastructure, undesirable location, security issues in ATM cards, the obstacles to open a bank account are the main challenges faced by most of the internet banking users generally. Digital banking is stated as a restless factor that the lifestyle easier. In case of dealing with the computer and other electronic devices there is always a view of system crashing, server traffic, virus threat and power and internet fluctuations which makes the accessibility of internet banking a little risk. There requires a necessary basic training and suggestion in case of senior citizen internet banking users and banks should take part in this process of educating and creating awareness among the customers.

**Eyob ketema (2020)** states that customer the only survival option for the business survival and at the same time their satisfaction also plays a major role for the survival of service industry. But it becomes more crucial to have surveillances and monitoring of the services rendered in the traditional methods of physical face to face method as well as on an online mode. The predictor variables such as reliability, security, efficiency, responsiveness, empathy and ease of use thus have a positive relationship with service quality. Even though this factor that inefficiency, responsiveness, reliability, ease of use is available in the current stage, the customers are expecting a higher percentage of these crucial factors in the pandemic situation and it forms the major part of the factors or choosing online banking services.

**Mayank Jindal and Vijay laxmi Sharma (2020)** states that electronic banking has the potential to transform the method of banking as it offers many benefits which can never be obtained by traditional banking. Electronic banking ensures conservation of valuable time which is involved in banking transactions. In spite of improvement in efficiency and convenience due to electronic banking, it may prove a double edged sword as it has posed several challenges to regulators and supervisors. The quality with which banks provide their services to their customers is utmost importance today. In today's world of competition every organization has to concentrate on its service quality in order to stand in the market.

**Ashish Kumar Sanjay Dhingra Vikas Batra and Harish Purohit (2020)** states that there came a swift rise in online banking and mobile banking when the initiative of demonetization have took place that is being witnessed by means of transaction rise through online banking in India. Several measures have been taken on the side of the government to encourage cashless payment and non physical and branchless payments to increase efficiency of the banking system. The digital payments system have reduced the daily operational cost which made the banking institutions to concentrate more on other important work and to solve problems that need immediate responses from the bank's part. And the banking institutions and intermediaries involved process of online banking transaction are considering in the growing interest of the users in online banking as an opportunity to reach customers and provide safe and pleasant mobile banking experience.

**Yuvnika Sogani (2020)** mentioned that many developed countries have switched to chip based cards and this change have globally caused a shift because of increased risk of cards skimming and cloning by the utilisation of magnetic strip cards. Although it did not attain hundred percent impacts in the number of cards frauds worldwide but it did have a most important impact in the process of reducing them. In countries like United Kingdom, United states the chips and pin technology has added an additional layer of security in making the world a safer and secure place for using and accepting online payments and online payments. And the same implies to India when the advent of chip technology commenced.

**Himanshu Arya (2019)** stated that electronic banking faces a challenge of safety and security most of the time and there prevails loss of data that may be caused due to technical defaults, the electronic banking also faces a kind of business challenges that is for a transaction done via internet the service charges are very low they can see profit unless there are large number of transactions are being routed over the website of the bank. He also stated that there is lack of forecast in advance on both the bank as well as that of the customers in practicing and adopting new technologies and their day to day changes. The paradigm shift from buyers market to sellers market has also increased the extent of accessibility of common man to bank for his own needs and wants.

**Dr. Pallavi Pattan & Meenal Agrawal (2018)** states that net banking is the second most commonly used mode of electronic payment system utilized for the purpose of electronic commerce users followed by debit cards in the first place. And that the third place is occupied by electronic wallet or e-wallet like paytm type of electronic payments system. It is also stated that electronic payment is not only a payment medium but it is also said to be a means of electronic commerce transactions for the customers at the international markets. Electronic payment method transforms the method of customer payments for buying of variety of goods and services in general and that the customers are not bound to stand in queue to make payment in recent times.

**Dr.M.Kavitha and Dr.K.Sampath Kumar (2018)** stated that the customers are rarely looking for more number of offers and smaller number of hindrances while utilizing the payment methods and gateways and the service providers has to have a look on the same and they need to upgrade themselves in order to attract more attention from the customers and other people. The payment gateway providers may extend their wings similar to traditional payments mode with more advanced technology to offer large number of usages within or through them in order to have to retain the existing customers and that to attract new customers. As the preferences of customers are falling like paytm, the other service providers can look for changes they require to

implement in order to reach the payment gateway market as the future was marching towards digital payments market.

**J.D.Sonkhaskar(2020)** states that the existing struggle of the economy of India with lower Gross Domestic Product Growth rate and the substantial unemployment rates has faced another un-predicted shock due to the Covid-19 pandemic breakout. The four stages of continued countrywide lockdown span that extended and lasted for over two months in conjunction with global slowdown and considerable interruption in the flow of demand and supply has created a huge concave in the economy so deeply that is so hard to overcome. Hence the planning should be made by taking into consideration the best case as well as the worst case scenarios that are prevailing in the Indian economy.

**Varda Sardana and Shubham Singhania (2018)** have stated that there are no many innovations and inventions have changed the banking business as widely as technological revolution. The banks in the international boundaries have been restructuring their long term strategies in order to harvest the new opportunities offered by that of the digitalisation. And it's not a surprise that the banking industry utilized that digitalisation revolution in the very first instance back in 1960's and thus has recorded the influencing the growing and development process through technology. It is also stated that despite the appeal of digital services the banks has to balance their traditional physical presence with their digital presence. There can be a win- win for both the sides by collaborating rather than competing with one another.

**S. Mahendra Dev and Rajeswari Sengupta (2020)** said COVID-19 has posed a great impact on Indian economy and banking sector. With the large population of the country and unstable situation of the economy and more dependence on informal labor, lockdowns and other measures has turned the economy into more disruptive situation. According to them the damage to the economy is likely to be worse than the current estimates. Indian Govt. needs to balance the income support required with the need to ensure fiscal situation doesn't spin out of control and the policy makers need

to prepare to scale up the response to minimize the impact of this virus and protect the economy from long term damage.

**Dr.Lekshmi Bhai (2018)** states that in the past few years the banking sector of India has been completely reformed and the banks are facing many hindrances and challenges as well as wide opportunities are made also available with the banking institutions. There are many more financial innovations in the banking industry such as automated teller machines, credit cards, debit cards, mobile banking, and real-time gross settlements and so on. These many innovations have completely changed the face of internet banking. But there always remains a gap that is a need for more innovative solutions to the regular problems so that the challenges can be resolved and the opportunities can be made available efficiently by the banks of Indian banking industry.

**Jamil hammoud, Rima M.Bizri and Ibrahim El Baba (2018)** states that **reliability is the main** service quality factor that is contributing mainly as a service quality variable and acts as a main predictor of customer satisfaction in a selected market. Though electronic banking is still relatively new to certain places and consequently below development and utilization, there exist leverage for the banks in the advancement in information technology to keep developing services that meets the actual expectations and beyond the expectations of the customers. He also states that the factor of reliability is not a stable factor but changes from different places and areas that need a special and careful investigation of this factor in multiple cultural contexts.

**Deepak kaushik (2019)** stated that most of the customers of the bank are well aware about the services provided by the banks in India. He also mentions that the banking institutions have to take necessary further steps for the purpose of educating their customers regarding the upgrades in the new technology as well as other such services offered by them to their customers. He also states that it becomes necessary for the banks to make extension for customer to have a meeting time with that of the

bank officials and to have a friendly and cordial relationship to be maintained between them throughout and after the process.

**Dr.N.Sulaiman (2018)**stated that the senior citizens customer is more reluctant to participate and join in new technologies or methods which may contain a considerable risk than the traditional method of banking. It is also important to make the services more user friendly that is more accessible and reliable form all the dimensions and customizable. He also stated that it is also important that to consider that some senior customers are Interested in online banking however they don't even possess required basic computer literacy to conduct it. In addition to that banks should design their website portals to concern the security and privacyissues.he also recommends to the banks that they have to increase the level of trust factor between the customer and the banks websites.

**Kritika nagdev and Anupama Rajesh (2018)** stated that for the purpose of studying the process and formulating and arriving customer engagement strategies there are three most significant factors that makes the customers to make them accept and use internet banking services in India. The utmost important inference for the banking industry of India is not just only to provide hassle free internet banking facilities and services but also to build a strong effective and trust worthy relationship with that of the customers based on the trust factors and in order to provide atime saving quick and easy way and method to access the website portal of the banking institution.

**Dr.Nitin Gupta and Ms.aditi Yadav (2017)**stated that though there were many advantages of online banking, the customers still consider it as a substitute for analysing their bank transaction records. Despite all banks provide the internet banking services; most of the customers only use it once in a month. This situation is only due to the lack of interpersonal interaction between the banking institution and the customers were rare or never possible. The foremost factor which influences the customers to use online banking is convenience and comfort and as well as the other factor that attracts most customers are quality and quantity of the information provided. It is also stated that still the customers of online banking have the fear of

security such as hacking of accounts and so on and the banking institutions are trying their level best to eliminate such threats.

**Carlos tam and Tiago Oliveira (2017)** states that the financial industry has has equally grown like many other industries and it has been innovated within their shells of operations. The technological advancement in a drastic level has cleared the path for new channels for banking. It becomes essential for the banking industry to be knowledgeable about what customer centric means and the methods to convert efforts into profitable notion. He also states that to give the customers the rigid to use any channels at any time. The problems of system unavailability and other such problems can even destroy the company image and engages the customer to feel less satisfies with the service provided. The output quality and system quality influences the satisfaction of internet banking users.

**Sriram Devulapalli and Sai karthik Oruganti (2017)**stated that safety and security of the customer details regarding the transaction and threats and frauds during online banking transaction becomes the main challenge of the electronic banking in India and they also stated that they had found that even after longer successive practical users do not feel that safe and secure becomes the major drawback in electronic banking .He also stated that if the safety and security measures have been implemented then the electronic banking becomes the most important and crucial phenomenal implementation by that of the citizens of the country and electronic banking might even have a transformation that is revolutionary service by the banking companies.

**Divisha Arya (2016)** states that the Study of Consumer perception and behavior has became essential. Consumers are the kings of markets. Without consumers no business institution can run. Consumer perception involves the psychological processes that consumers go through in recognizing needs, finding ways to solve these needs, making purchase decisions, interpret information, make plans, and implement these plans. Consumers often buy products not because of their attributes pursue but rather because of the ultimate benefits that these attribute provide, in turn leading to the satisfaction of ultimate values. Consumer behavior is a complex,

dynamic, multidimensional process, and all decisions are based on assumptions about consumer perception and Models of consumer perception play a key role in modern empirical Organization.

**A.Anishkumar, S.Ariharan & D,Asir Immanuvel (2016)** stated that in recent years the banking industry has been the leader in the electronic business world and the electronic banking revolution primarily changed the banking business by scaling and coming up with new opportunities. The online banking revolution has impacted the strategic business considerations by increasingly cutting down the cost of transaction and delivery of services in India. He also stated that compared to developed countries the developing countries face more obstacles that affect the bringing successful implementation of electronic banking initiatives. He also stated that electronic banking is a difficult business for many countries but eliminated the difficulties of traditional banking methods that is being faced.

**Dr. Gomathy Thyagarajan(2015)** stated that the mobile banking has failed or missed to address the use of internet banking application through tablets, smart phones and also failed to state its drawbacks. He also stated that the feelings, complaints and the feedback given by the customers have to be taken into consideration by the banking institutions before they arrive at a conclusion. And also the mobile banking service providers should successively take measures to improve the awareness about the internet banking services and such awareness should also cover the remote villages provided with local languages and customer friendly as well as user friendly software to reduce the complexity.

**Anukool Manish Hyde (2015)** States that the integrated level banks have a tie up with various online shopping websites and online banking makes it possible to make the simpler even to make available the credit facilities through the online window with no more complex procedures. Yet people of country like India has not gained more knowledge of the purpose and benefits of online banking .and are not willing to risk themself is the prevailing truth due to insecurities such as security hindrances and further more complexions. Although there are few drawbacks, the online banking services have made the lifestyle more simpler and it has made possible to process

cutter the traditional method of banking. And the banks must also be a medium to generate trust in the minds of the customers that electronic bank is safe.

**SanazZarrinkafsh (2015)** states that the younger individuals have more experience with that of the gadgets and computers and are more likely to be tech savvy in comparison with the older individuals. Hence there remains always an unbalance between the younger generation and older generation in terms for acceptance and usage of technology in their day to day activities. And it is also noted that the research has a high cross loading of items between perceived usefulness and that of perceived ease of use of which might have resulted in the path being supported and have a positive notion towards the development and increased usage of online banking in all parts of the society.

**Rao.Y.V and Srinivasa Rao Budde (2015)** states that the customers using banks have become more experienced and savvy using the technology based banking services. And the current banking customers are more informed than ever before and have a high level of confidence in choosing and utilising the products and service providers for themselves. As a result of the recent crisis and reduced trust in banks the customers are now much more willing and enthusiastic to purchase products and services from various banks than they were in the past years and are consequently banking with the different multiple providers. Managing the different banking relationship and comparison of product between different providers is becoming easier.

**Sanghita Roy, Indrajit sinha (2014)** mentioned that electronic payment system has made a tremendous growth in India but there are still many things to be done to increase the usage of electronic payment mode. Still there is more than 90% of the transaction made as cash transaction and so there is a requirement to widen the scope of electronic payment. There are four factors that contribute to strengthen the electronic payment system. They are innovation, incentive, customer convenience and legal frame work. They also specified that the banks should ensure that the electronic payment mode is safe and secure like that of the traditional transaction and the banks should organize free seminars and conferences especially in rural and

remote areas in order to educate less qualified people regarding the benefits of online banking transactions.

**Caroline Lancelot Miltgen,Tiagooliveira (2013)** states Technology adoption theory is extended by adding the potential recommendation power. Renowned technology acceptance variables influence acceptance and recommendation. The key drivers of acceptance and that of the recommendation come from the trust and privacy literature. The Information system has long emphasized the significance of user acceptance of computer based information system. The evaluation of the determination of acceptance of information technology is more important to address the problems of under utilization and the leverage of information technology investments especially for more radical technologies.

**K.T.Geetha&V.Malarvizhi(2012)** stated that there comes a necessity for providing better service as well as a customized service for country like india. And the banking institutions must be more concerned about the attitudes of its customers with regard to their acceptance of internet banking. They also state that the significance of privacy and security for acceptance of online banking has been taken into consideration and it is found that people have weak understanding of online banking though they were aware about the risk involved in that mode. He also showed that the customers are more hesitant to join new technologies or modes which might contain comparatively extra risk in that. They also suggested that the bank has to design user-friendly websites to address the trust and security issues which they face while using such online portals of the banking institutions.

**Nel J., Boshoff C., Raleting T., (2012)**, states that the exploitation of the technology cluster effects of the enhanced adoption of mobile banking among the low income earners group. The study investigates the customer's attitude formation for the low income group, non users group of Wireless Internet Gateway mobile banking and by the way of including the use of the Short Message Services as a medium or moderator of attitude formation based on the average number of text message sent in a week. The changing effect of use of the Short message service was investigated by the way of a structural equation modeling and analysis of multi group. The findings of

that research revealed that the influencers of ease of use on Attitude and that of the self-efficacy on ease of use were way more stronger for high users and are significantly different from the low users. While it was the opposite was true for the influence of facilitating the conditions on usefulness.

**Anaya Gupta (2018)** stated that Level of usefulness of e-banking services is significantly less for rural bank customers when compared to their semi-urban and urban areas. It is found that “time saving and less cost” tend to influence the bank customers, intention to continue using the internet banking site in the future. Rural, semi-urban and urban areas respondents have viewed that e- banking as convenient and easy to use and as a good option next to traditional banking but they have perceived that use of new technology like internet banking is complicated and difficult. Internet banking is very important for present and also for the future development for bank customers and the importance of internet banking is significantly related to their age, education, occupations and income.

## CHAPTER-3

### RESEARCH METHODOLOGY

#### 3.1 NEED FOR STUDY

**Traditional Banking Habits-** Despite the benefits of online banking, 49 percent of adults do not participate in it at all. This will happen mainly due to traditional banking many people are used to and it also can take time for them to break such habits. So, online banking marketers have to focus on ways to convince the traditional banking users to start the utilization of online banking services.

**Security-** Security is one of the significant challenges for online banking. This is because, in the past, if a robber was going to steal a person's bank savings would have to break into the bank vault, and make a daring escape with the money. This was an extremely difficult prospect and involved lot of danger and risk. With online banking the cyber criminals is simply need to ascertain a certain personal information to break into a person's account and steal their money. It can be done anonymously and involves less physical danger than in the past.

**Transaction Difficulty-** It can significantly be more difficult and time consuming for deposit or withdraw money from an online banking. Not only online banks often have fewer ATM's than their traditional counterparts, but it can also simply take long amounts of time for the deposits to be processed and reflect in a bank account.

**Technical Issues-** Because of those online banks rely on the online platforms, this means that they can also generate substantial losses if their systems crash or if there are bugs in their code. A single technical issue which causes a bank to be down for a day could have cost the bank millions in losses.

**Small Budgets-** Many startups have to operate on minimized budgets before they have grown in to a larger size. Obviously this can be a major challenge. If the marketing budget is very small, then you need to have focus on the priority expenses.

## **3.2 SCOPE OF THE STUDY**

In the present scenario majority of the economical and technical changes are taking place in industrial and financial revolution by the process of new information-processing technology. Especially in finance sector changes has a significant role for the overall development. After identifying the research area and referring the relevant literatures, it has been found that in most of the literature, the information technologies have a wide application area. However in the finance sector majority changes have been taken place. Due to these major changes we have chosen to do the study on effectiveness of online banking during pandemic. After completing step by step procedure, now it is required to take the review of the system.

The people used information and technological tools to manage and to process the information. The automation process is used in the financial sector for transaction system. Automation type of working methodology is used in the financial Institute since many years. The bank sector is mostly related to all classes of people like businessmen, industry, agriculture, labor, small entrepreneurs, workers etc. It has been changing the complete culture and the working methodology. Hence it has a wider scope to study the prevailing modern transaction system in the financial sector especially in online banking system. In the literature survey it has been found that the technology has monopoly for the development of software product and it is observed that such technology is not used for study purpose in any other different field.

## **3.3 OBJECTIVE OF THE STUDY**

### **3.3.1 Primary objective-**

To study the effectiveness of online banking during pandemic situation.

### **3.3.2 Secondary objectives**

- To study the awareness about the online banking services provided by the banking sector during pandemic.

- To identify the satisfaction level towards online banking during pandemic situations.
- To evaluate the factors for preferring online banking service.
- To analyze on the perception of customers towards e-banking during pandemic.

### **3.4 RESEARCH DESIGN**

A research design is considered as a framework or a plan for a study that guides as well as helps the data collection and analysis of data.

#### **3.4.1 Descriptive Research Design**

Descriptive research is a type of study that is designed to depict the participants in an accurate way. In simple words, the descriptive research is all about describing the respondents who take part in the study.

### **3.5 SOURCES OF DATA**

#### **3.5.1 Primary data**

Primary data means the data that are collected by the investigator conducting the research in the contrast.

##### **3.5.1.1 Questionnaire**

The questionnaire tried to capture the responses of the customers mainly on the key deliverables, derived from the survey conducted and a few questions have been included to gauge the level of satisfaction and to gain insights into customers expectations.

#### **3.5.2 Secondary Data Sources**

Secondary data refers to the data that was collected by someone other than the user. Common sources of secondary data are Journals, books, websites, industrial records and data that was originally collected for other research purposes.

### **3.6 STRUCTURE OF QUESTIONNAIRE AND POPULATION**

There are two broad types of questions. They are open ended or open questions and closed ended or closed questions. An open question enables the respondents to answer as they wish and closed questions provide the respondents with a list of options from which they choose an option. The number of respondents collected was 112 respondents randomly in Chennai location.

### **3.7 SAMPLING TECHNIQUE**

#### **3.7.1 Convenience sampling method**

A convenience sampling is one of the main types of non-probability sampling methods. A convenience sample is made up of people who are easy to reach.

### **3.8 PERIOD OF STUDY**

The period of study is from January 2021 to March 2021 which is a three months of study.

### **3.9 ANALYTICAL TOOLS**

The analytical tools used are percentage analysis, correlation and one way anova.

### **3.10 LIMITATIONS OF THE STUDY**

- The analysis of the present study has been carried out based on the information collected from the customers of banks.
- This study is an opinion survey and caution may have to be exercised while extending the result to other areas.
- Due to time constraints only 112 numbers of respondents were considered.
- The result fully dependent on the information given by that of the respondents which may be based.

## CHAPTER – 4

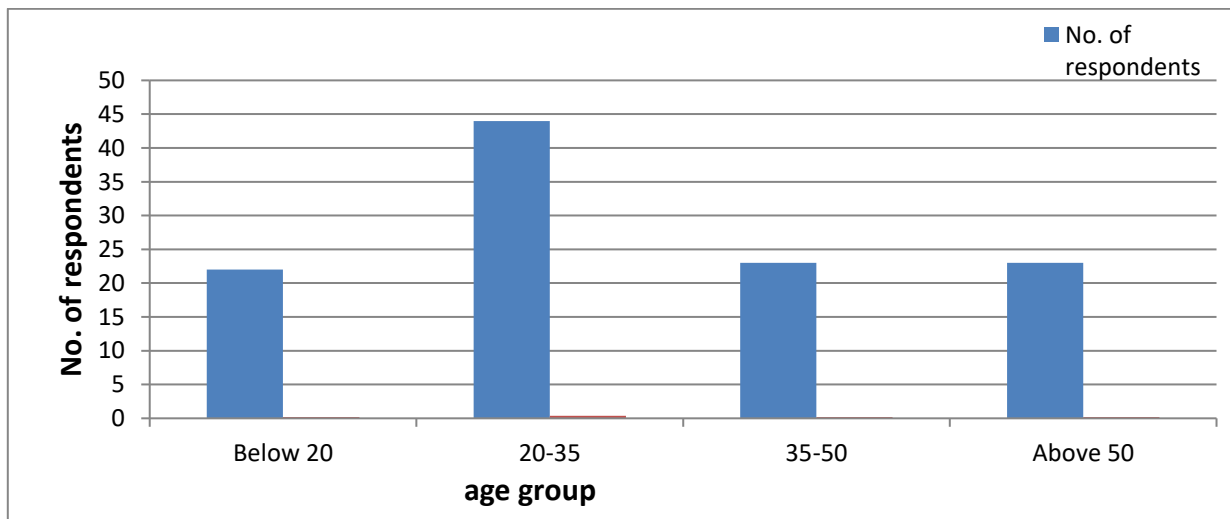
### DATA ANALYSIS AND INTERPRETATION

#### 4.1 PERCENTAGE ANALYSIS

**TABLE 4.1.1- Age of the respondents**

| S No | Particulars | No. of respondents | Percentage |
|------|-------------|--------------------|------------|
| 1    | Below 20    | 22                 | 19.6%      |
| 2    | 20-35       | 44                 | 39.3%      |
| 3    | 35-50       | 23                 | 20.5%      |
| 4    | Above 50    | 23                 | 20.5%      |
|      | total       | 112                | 100        |

**Source: primary data**



**Chart 4.1.1- Age of the respondents**

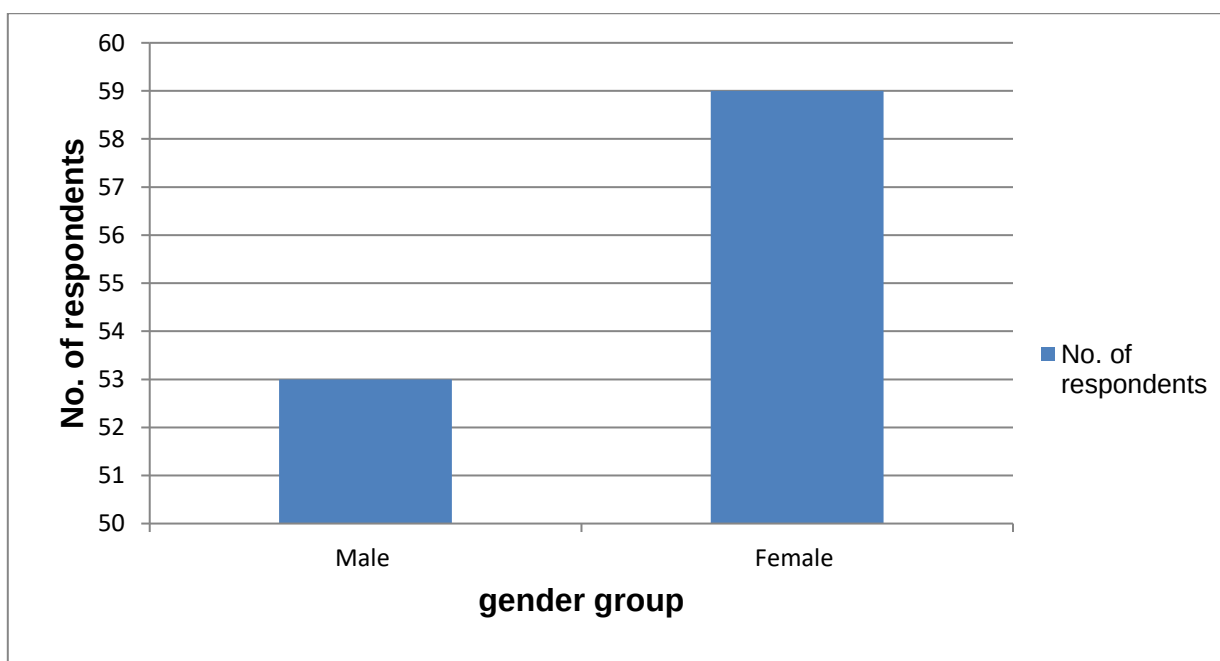
#### **Interpretation-**

From the above table it is interpreted that the number of respondents below the age 20 is 19.6%, 20-35 years of age is 39.3%, 35-50 years of age is 20.5% and above the age 50 is 20.5%. it is inferred that majority of the respondents fall under the age group 20-35.

**TABLE 4.1.2- Gender of the respondents**

| S No. | particulars | No. of respondents | percentage |
|-------|-------------|--------------------|------------|
| 1     | Male        | 53                 | 47.3       |
| 2     | Female      | 59                 | 52.7       |
|       | Total       | 112                | 100        |

Source: primary data



**Chart 4.1.2- Gender of the respondents**

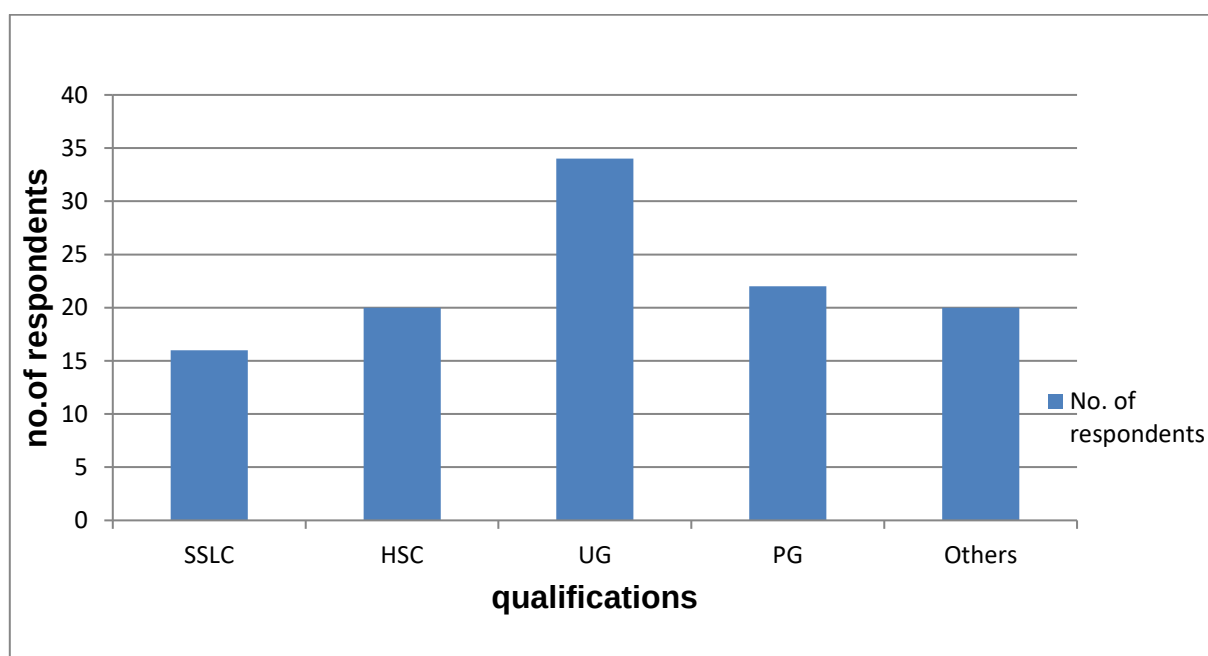
### **Interpretation**

From the above table it is interpreted that the percentage of male respondents is 47.3% and that of the women respondents is 52.7%.it is inferred that majority of the respondents are women.

**Table 4.1.3- Qualification of the respondents**

| S No | Particulars | No. of respondents | percentage |
|------|-------------|--------------------|------------|
| 1    | SSLC        | 16                 | 14.3%      |
| 2    | HSC         | 20                 | 17.9%      |
| 3    | UG          | 34                 | 30.4%      |
| 4    | PG          | 22                 | 19.6%      |
| 5    | Others      | 20                 | 17.9%      |
|      | TOTAL       | 112                | 100        |

Source- Primary data



**Chart 4.1.3- qualification of the respondents**

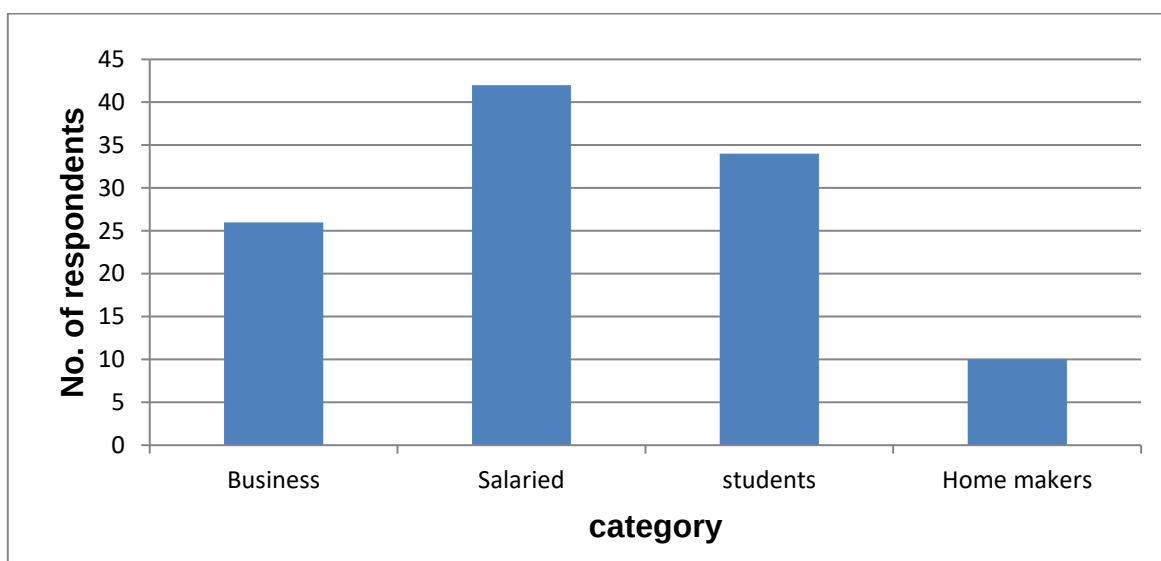
### **Interpretation**

From the above table it is interpreted that the percentage of number of respondents who have completed SSLC is 14.3%, HSC is 17.95, Under graduate is 30.4%, post graduate is 19.6% and other are 17.9%. The majority of the respondents pertains to undergraduate respondents.

**TABLE 4.1.4- Designation of the respondents**

| S No | Particulars | No. of respondents | Percentage |
|------|-------------|--------------------|------------|
| 1    | Business    | 26                 | 23.21%     |
| 2    | Salaried    | 42                 | 37.50%     |
| 3    | students    | 34                 | 30.36%     |
| 4    | Homemakers  | 10                 | 8.93%      |
|      | TOTAL       | 112                | 100        |

**Source: primary data**



**Chart 4.1.4- Designation of the respondents**

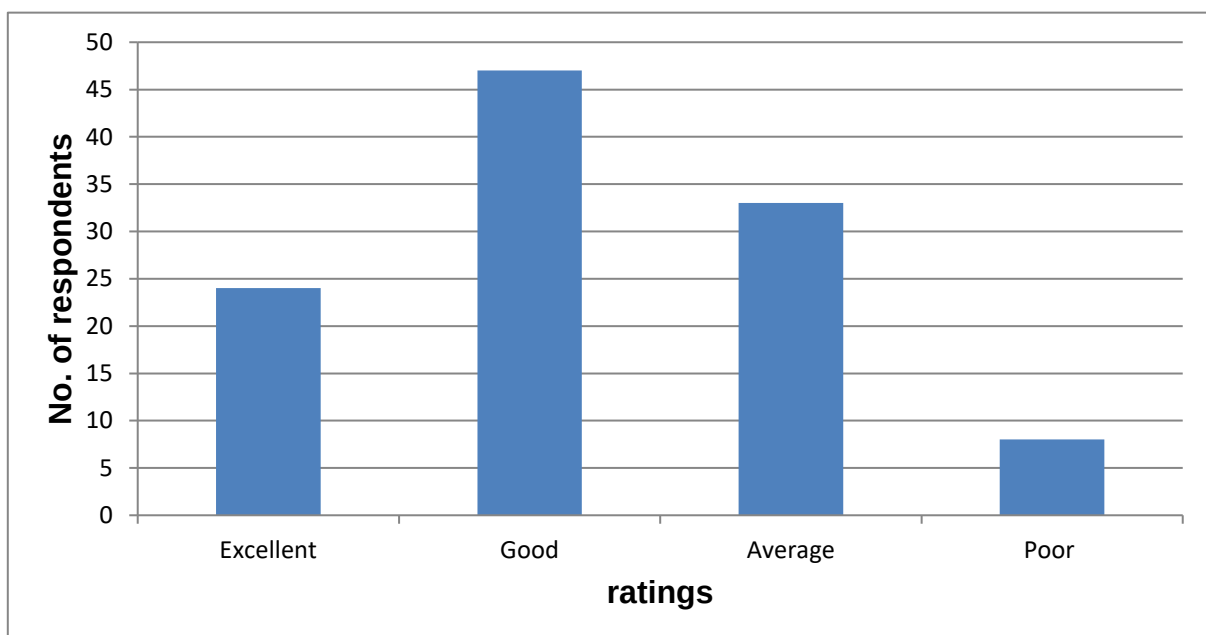
#### **Interpretation**

From the above table it is interpreted that the percentage of respondents whose designation category was business is 23.21%, salaried is 37.50%, homemakers are 8.93% and students are 30.36%. it can be inferred that the majority respondents belong to salaried category.

**TABLE 4.1.5 – OVERALL RATING FOR ONLINE BANKING SERVICES**

| S No | particulars | No. of respondents | Percentage |
|------|-------------|--------------------|------------|
| 1    | Excellent   | 24                 | 21.4%      |
| 2    | Good        | 47                 | 42%        |
| 3    | Average     | 33                 | 29.5%      |
| 4    | Poor        | 8                  | 7.1%       |
|      | TOTAL       | 112                | 100        |

Source: primary data



**CHART 4.1.5- overall rating of online banking based on satisfaction level**

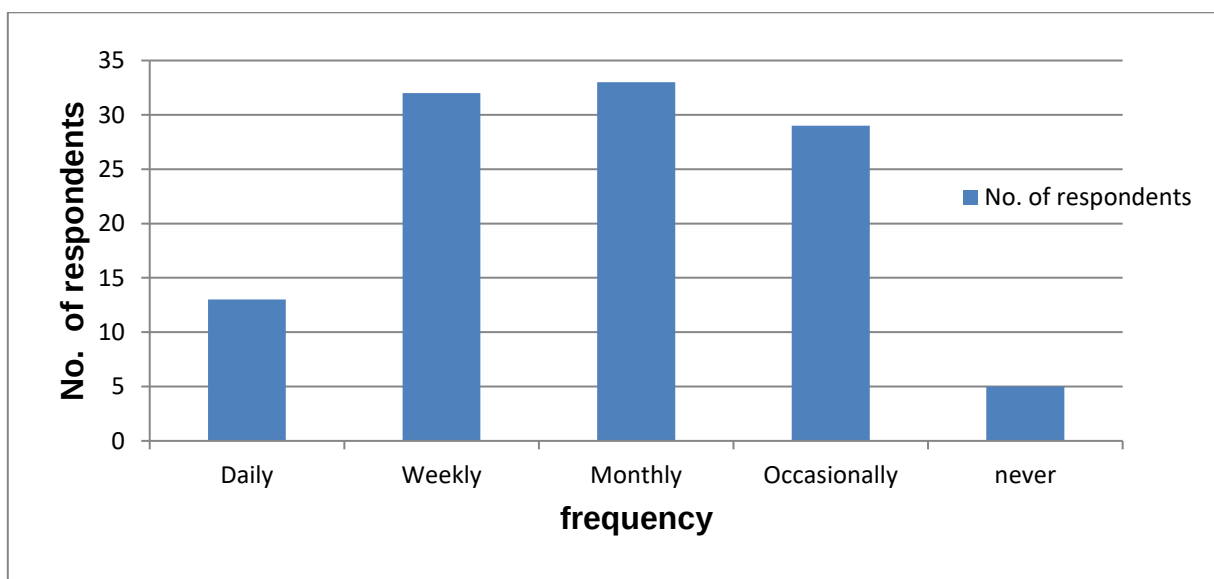
#### **INTERPRETATON**

From the above table it is interpreted that the percentage of number of respondents who has given rating as excellent is 21.4%, good is 42%, average is 29.5% and poor is 7.1%. it is inferred that the majority of respondents has chosen good as the rating.

**TABLE 4.1.6 FREQUENCY OF ONLINE BANKING USAGE**

| S No | Frequency of usage | No. of respondents | percentage |
|------|--------------------|--------------------|------------|
| 1    | Daily              | 13                 | 11.6%      |
| 2    | Weekly             | 32                 | 28.6%      |
| 3    | Monthly            | 33                 | 29.5%      |
| 4    | Occasionally       | 29                 | 25.9%      |
| 5    | never              | 5                  | 4.5%       |
|      | Total              | 112                | 100        |

Source: Primary data



**CHART 4.1.6- frequency of online banking usage**

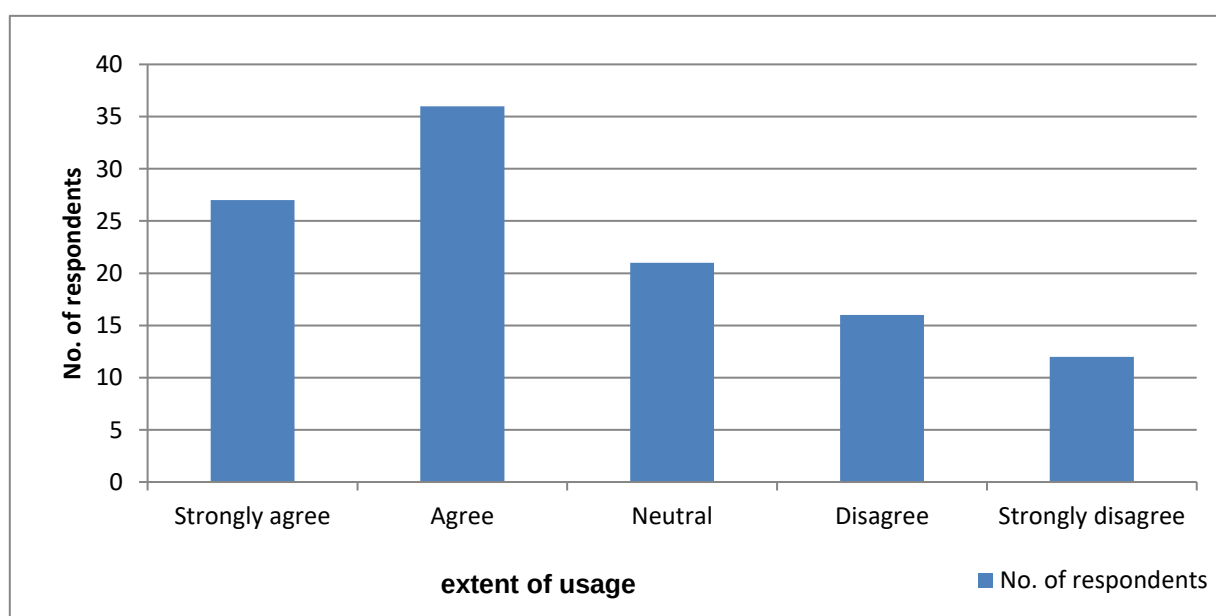
### **INTERPRETATION**

From the above table it is interpreted that percentage of number of respondents whos frequency pertains to category daily is 11.6%, weekly is 28.6%, monthly is 29.55, occasionally is 25.9% and never is 4.5%. it is inferred that the majority of respondents are monthly users of online banking services.

**TABLE 4.1.7-MAKE USE OF ALL ONLINE BANKING FACILITIES**

| S No | Particulars       | No. of respondents | Percentage |
|------|-------------------|--------------------|------------|
| 1    | Strongly agree    | 27                 | 24.10%     |
| 2    | Agree             | 36                 | 32.00%     |
| 3    | Neutral           | 21                 | 18.75%     |
| 4    | Disagree          | 16                 | 14.27%     |
| 5    | Strongly disagree | 12                 | 10.90%     |
|      | Total             | 112                | 100        |

**Source:** Primary data

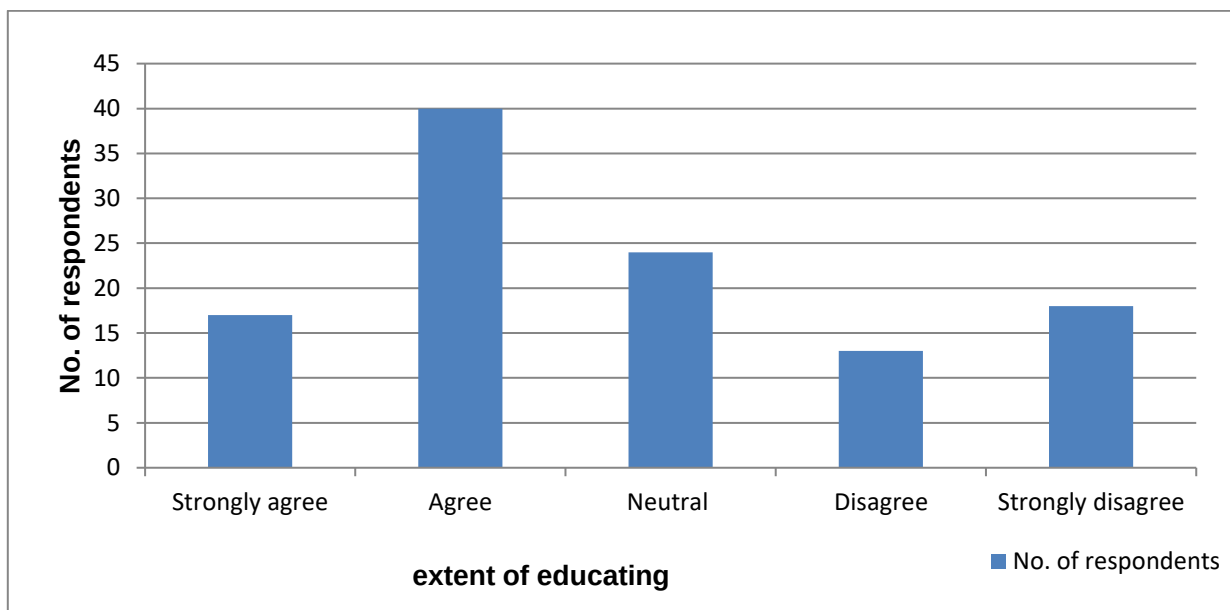
**CHART 4.1.7 Usage of all online banking facilities****INTERPRETATION**

From the above table it is interpreted that the percentage of respondents rated to makes use of all online banking facilities as strongly agree is 24.10%, agree is 32%, neutral is 18.75%,disagree is 14.27% and strongly disagree is 10.90%. it is inferred that majority of respondents have rated Agree as rating.

**TABLE 4.1.8- BANK EDUCATING ABOUT ONLINE BANKING SERVICES**

| S No | Particulars       | No. of respondents | Percentage |
|------|-------------------|--------------------|------------|
| 1    | Strongly agree    | 17                 | 15.19%     |
| 2    | Agree             | 40                 | 35.73%     |
| 3    | Neutral           | 24                 | 21.43%     |
| 4    | Disagree          | 13                 | 11.61%     |
| 5    | Strongly disagree | 18                 | 16.04%     |
|      | TOTAL             | 112                | 100        |

**Source: Primary data**



**CHART 4.1.8-bank educating about online banking**

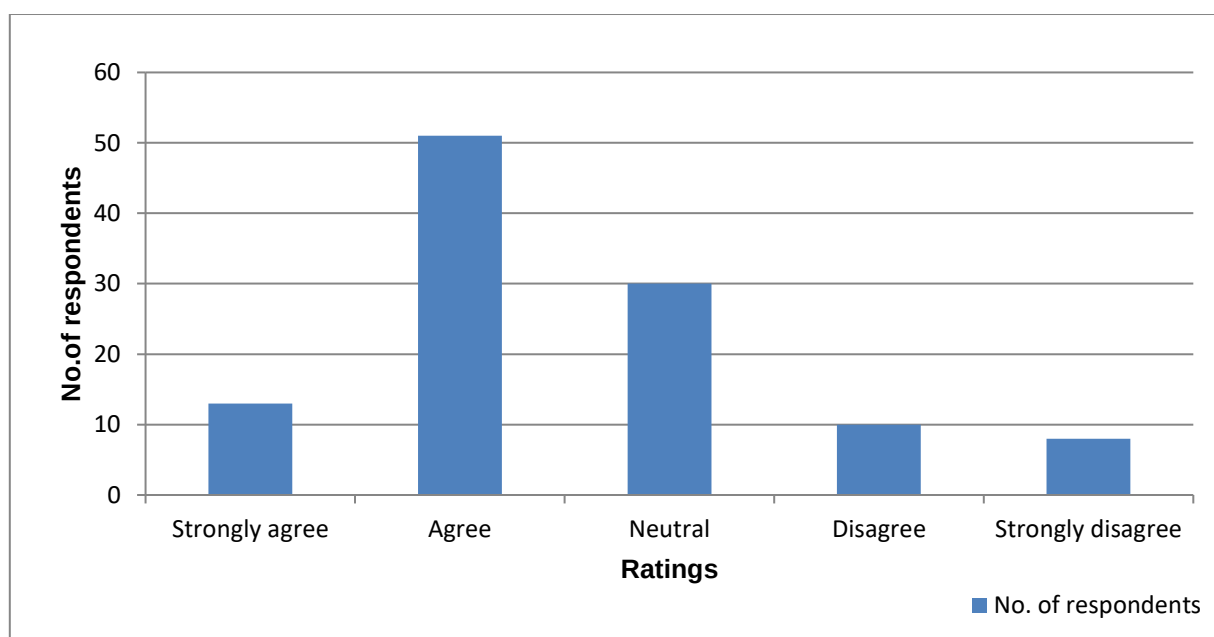
#### **INTERPRETATION**

From the above table it is interpreted that the percentage of respondents rated the extent to which the bank educates about the online banking facilities as strongly agree is 15.19%, agree is 35.73%, neutral is 21.43%, disagree is 11.61% and strongly disagree is 16.0%. it is inferred that majority of respondents have rated Agree as rating.

**TABLE 4.1.9-AWARENESS OF SECURITY THREATS AND FRAUDS IN ONLINE BANKING**

| S No | particulars       | No. of respondents | Percentage |
|------|-------------------|--------------------|------------|
| 1    | Strongly agree    | 13                 | 11.65%     |
| 2    | Agree             | 51                 | 45.57%     |
| 3    | Neutral           | 30                 | 26.79%     |
| 4    | Disagree          | 10                 | 8.84%      |
| 5    | Strongly disagree | 8                  | 7.15%      |
|      | TOTAL             | 112                | 100        |

**Source: Primary data**



**Chart 4.1.9 Awareness about security threats and frauds in online banking**

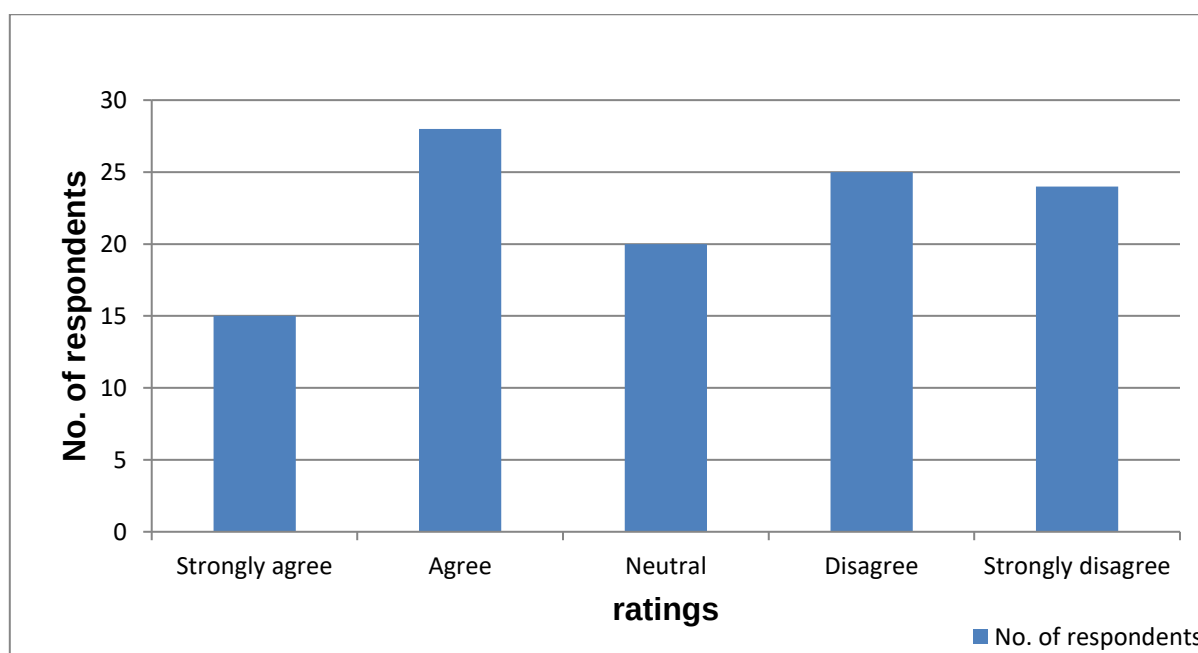
### **INTERPRETATION**

From the above table it is interpreted that the percentage of respondents rated the awareness about security threats and frauds in online banking as strongly agree is 11.65%, agree is 45.57%, neutral is 26.79%, disagree is 8.84% and strongly disagree is 7.15%. It is inferred that majority of respondents have rated Agree as rating.

**TABLE 4.1.10 FAMILIARITY OF METHOD OF SECURED ONLINE TRANSACTION**

| S No | particulars       | No. of respondents | Percentage |
|------|-------------------|--------------------|------------|
| 1    | Strongly agree    | 15                 | 13.39      |
| 2    | Agree             | 28                 | 25.00      |
| 3    | Neutral           | 20                 | 17.86      |
| 4    | Disagree          | 25                 | 22.32      |
| 5    | Strongly disagree | 24                 | 21.43      |
|      | TOTAL             | 112                | 100        |

Source: Primary data

**CHART 4.1.10 familiarity of methods of secured online transactions**

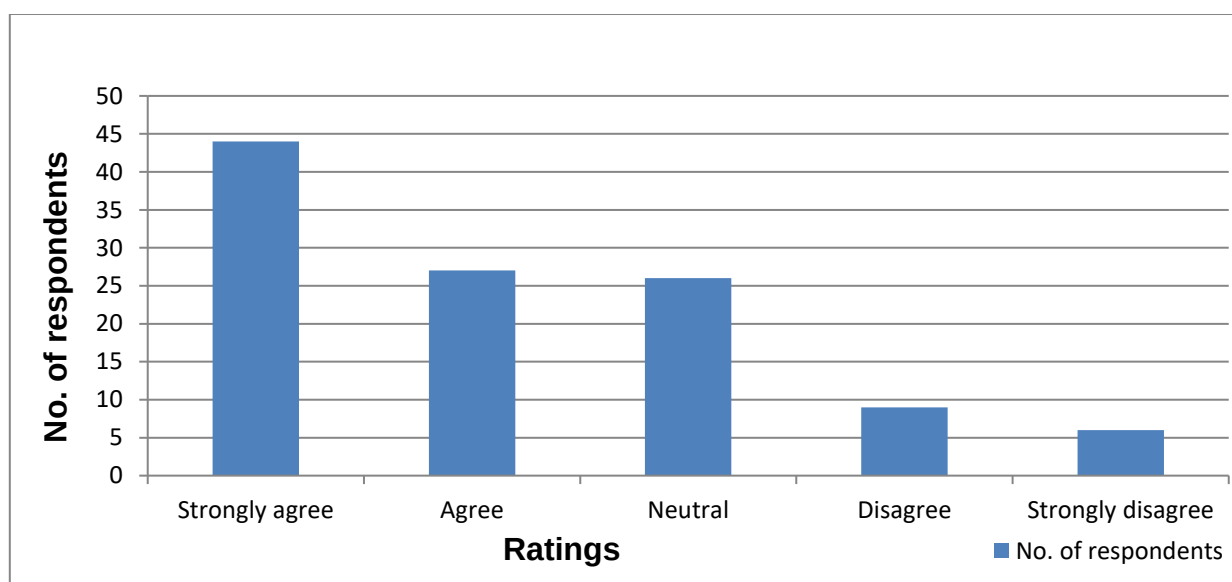
### INTERPRETATION

From the above table it is interpreted that the percentage of respondents rated the familiarity of methods of secured online transaction as strongly agree is 13.39%, agree is 25%, neutral is 17.86%, disagree is 22.32% and strongly disagree is 21.43%. It is inferred that majority of respondents have rated Agree as rating.

**TABLE 4.1.11 ONLINE BANKING A BETTER SUBSTITUTE OF TRADITIONAL BANKING BASED ON CUSTOMER'S PERSPECTIVE**

| S No | particulars       | No. of respondents | Percentage |
|------|-------------------|--------------------|------------|
| 1    | Strongly agree    | 44                 | 39.29      |
| 2    | Agree             | 27                 | 24.11      |
| 3    | Neutral           | 26                 | 23.21      |
| 4    | Disagree          | 9                  | 8.04       |
| 5    | Strongly disagree | 6                  | 5.35       |
|      | TOTAL             | 112                | 100        |

Source: Primary data



**CHART 4.1.11 online banking a better substitute based on customer's perspective**

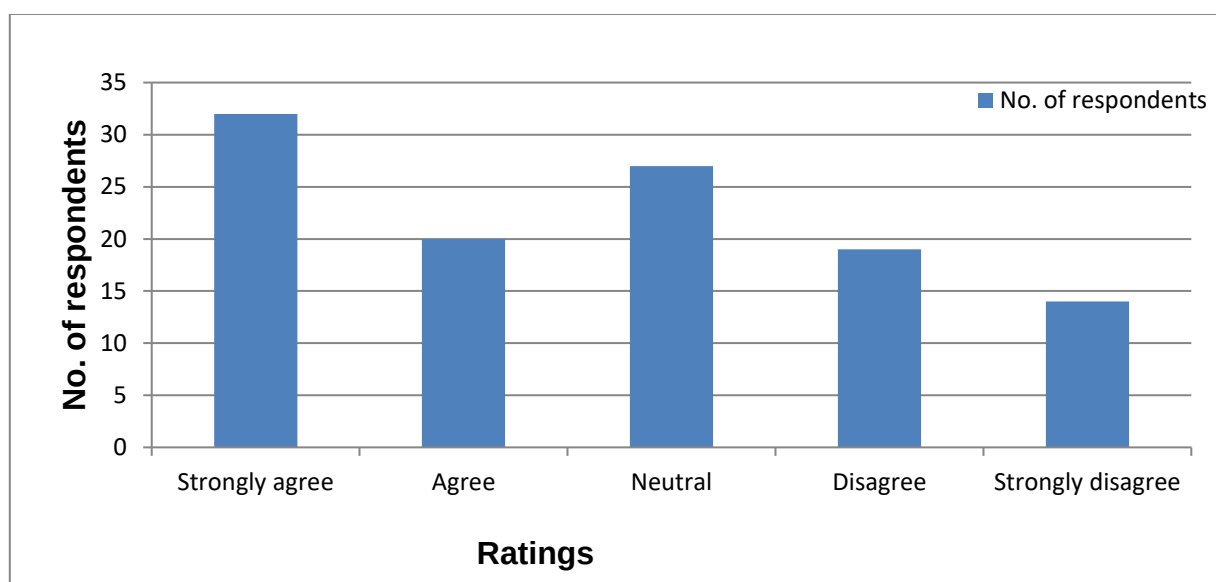
#### INTERPRETATION

From the above table it is interpreted that the percentage of respondents who have rated online banking as a better substitute based on their perspective as strongly agree is 39.29%, agree is 24.11%, neutral is 23.21%, disagree is 8.04% and strongly disagree is 5.35%. It is inferred that majority of respondents have rated Strongly Agree as rating.

**TABLE 4.1.12 ONLINE BANKING A BETTER SUBSTITUTE FOR TRADITIONAL BANKING BASED ON CUSTOMER SATISFACTION**

| S No | particulars       | No. of respondents | Percentage |
|------|-------------------|--------------------|------------|
| 1    | Strongly agree    | 32                 | 28.57%     |
| 2    | Agree             | 20                 | 17.85%     |
| 3    | Neutral           | 27                 | 24.10%     |
| 4    | Disagree          | 19                 | 16.98%     |
| 5    | Strongly disagree | 14                 | 12.50%     |
|      | TOTAL             | 112                | 100        |

Source: primary data



**CHART 4.1.12 Online banking a better substitute based on Customer's satisfaction**

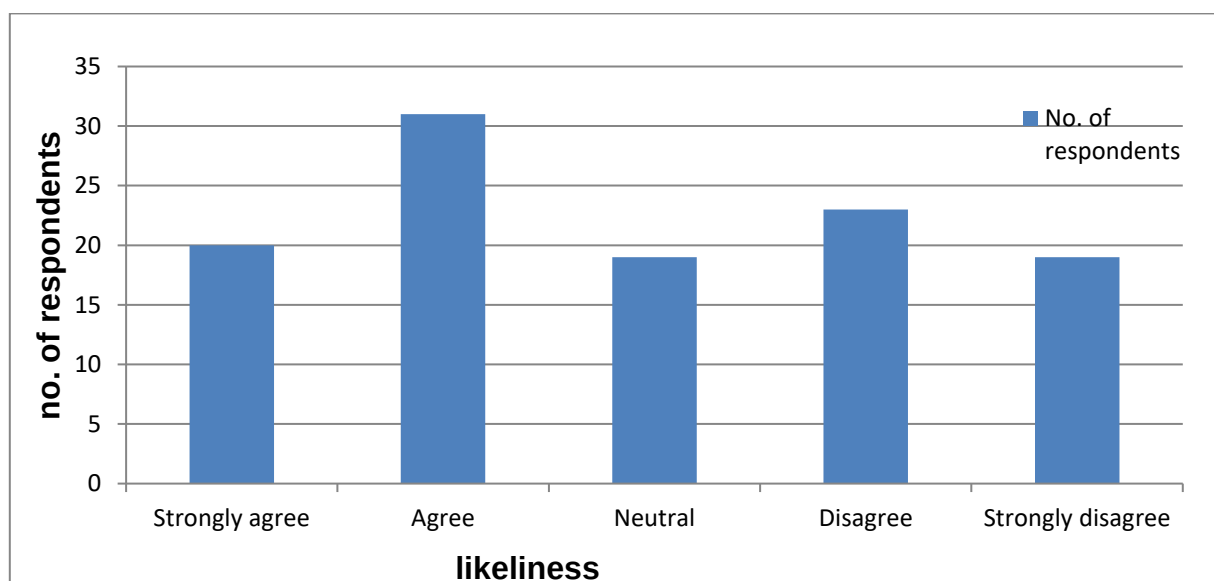
#### **INTERPRETATION**

From the above table it is interpreted that the percentage of respondents who have rated online banking as a better substitute based on their satisfaction as strongly agree is 28.57%, agree is 17.85%, neutral is 24.10%, disagree is 16.98% and strongly disagree is 12.50%. it is inferred that majority of respondents have rated Strongly Agree as rating.

**TABLE 4.1.13 LIKELY TO OPEN INTERNET BANK ACCOUNT IN SUCCEEDING PERIOD**

| S No | particulars       | No. of respondents | Percentage |
|------|-------------------|--------------------|------------|
| 1    | Strongly agree    | 20                 | 17.86%     |
| 2    | Agree             | 31                 | 27.68%     |
| 3    | Neutral           | 19                 | 16.96%     |
| 4    | Disagree          | 23                 | 20.54%     |
| 5    | Strongly disagree | 19                 | 16.96%     |
|      | TOTAL             | 112                | 100        |

Source: Primary data



**CHART 4.1.13 Likeliness to open internet bank account in succeeding period**

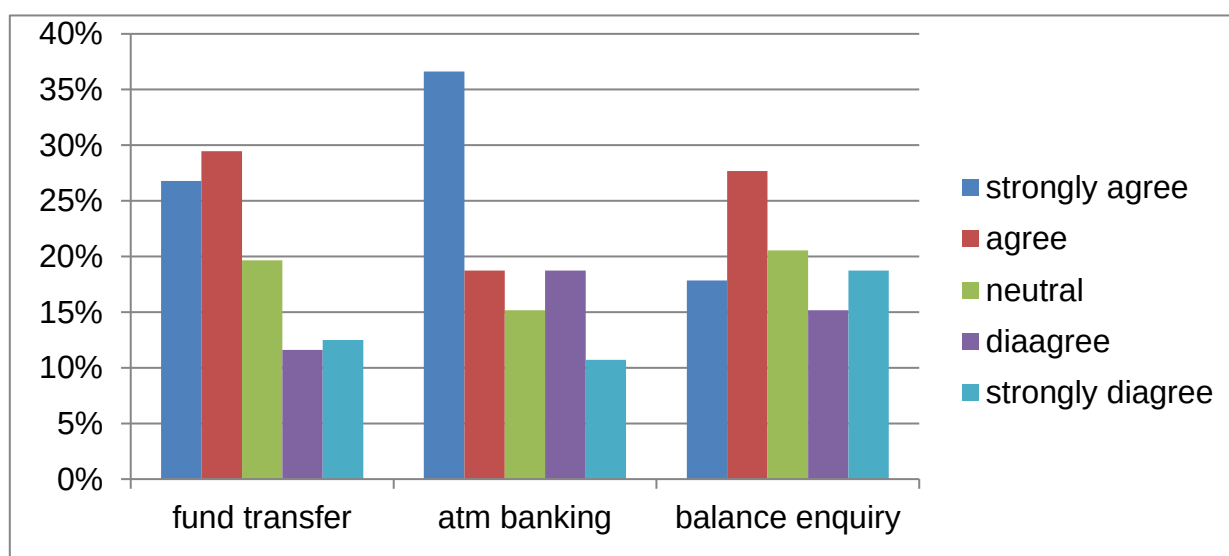
#### **INTERPRETATION-**

From the above table it is interpreted that the percentage of respondents who have rated the likeliness to open internet banking account in the succeeding period as strongly agree is 28.57%, agree is 27.68%, neutral is 16.96%, disagree is 20.54% and strongly disagree is 16.96%. it is inferred that majority of respondents have rated Agree as rating.

**TABLE 4.1.14(A) LEVEL OF SATISFACTION ATTAINED FROM ONLINE BANKING SERVICES**

| Sl No. | Ratings           | Online services |             |                 | Percentage    |             |                 |
|--------|-------------------|-----------------|-------------|-----------------|---------------|-------------|-----------------|
|        |                   | Fund transfer   | Atm banking | Balance enquiry | Fund transfer | Atm banking | Balance enquiry |
| 1      | Strongly agree    | 30              | 41          | 20              | 26.79%        | 36.61%      | 17.86%          |
| 2      | Agree             | 33              | 21          | 31              | 29.46%        | 18.75%      | 27.68%          |
| 3      | Neutral           | 22              | 17          | 23              | 19.64%        | 15.18%      | 20.54%          |
| 4      | Disagree          | 13              | 21          | 17              | 11.61%        | 18.75%      | 15.18%          |
| 5      | Strongly disagree | 14              | 12          | 21              | 12.50%        | 10.71%      | 18.75%          |
|        | TOTAL             | 112             | 112         | 112             | 100           | 100         | 100             |

**Source: Primary data**



**Chart 4.1.14 (A) Level of satisfaction attained from online banking services**

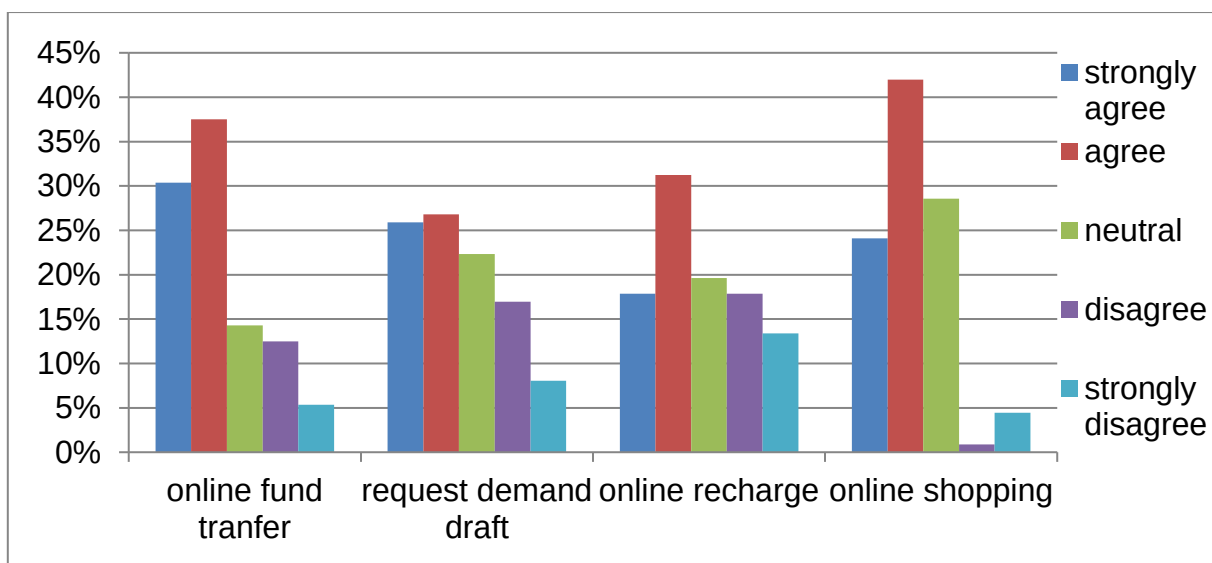
## INTERPRETATION

From the above table it is interpreted that the percentage of number of respondents who chose level of satisfaction attained for fund transfer, atm banking, balance enquiry as strongly agree is 26.79%,36.61%,17.86%, Agree is 39.46%,18.75%,27.68%, neutral is 19.64%, 15.18%, 20.54%, disagree is 11.61%, 18.75%, 15.18%, and strongly disagree is 12.50%, 10.71%, 18.75% respectively.

**TABLE 4.1.14(B) LEVEL OF SATISFACTION ATTAINED FROM ONLINE BANKING SERVICES**

| S<br>I<br>N<br>O | Ratings              | Online services                |                            |                        |                        | Percentage                 |                             |                        |                        |
|------------------|----------------------|--------------------------------|----------------------------|------------------------|------------------------|----------------------------|-----------------------------|------------------------|------------------------|
|                  |                      | online<br>fund<br>transfe<br>r | request<br>demand<br>draft | online<br>recharg<br>e | online<br>shoppi<br>ng | online<br>fund<br>transfer | request<br>deman<br>d draft | online<br>recharg<br>e | online<br>shoppin<br>g |
| 1                | Strongly<br>agree    | 34                             | 29                         | 20                     | 27                     | 30.36                      | 25.89                       | 17.86                  | 24.11                  |
| 2                | Agree                | 42                             | 30                         | 35                     | 47                     | 37.50                      | 26.79                       | 31.25                  | 41.96                  |
| 3                | Neutral              | 16                             | 25                         | 22                     | 32                     | 14.29                      | 22.32                       | 19.64                  | 28.57                  |
| 4                | Disagree             | 14                             | 19                         | 20                     | 1                      | 12.50                      | 16.96                       | 17.86                  | 0.89                   |
| 5                | Strongly<br>disagree | 6                              | 9                          | 15                     | 5                      | 5.36                       | 8.04                        | 13.39                  | 4.46                   |
|                  | TOTAL                | 112                            | 112                        | 112                    | 100                    | 100                        | 100                         | 100                    | 100                    |

**Source: primary data**



**Chart 4.1.14(B) Level of satisfaction attained from online banking services**

#### INTERPRETATION

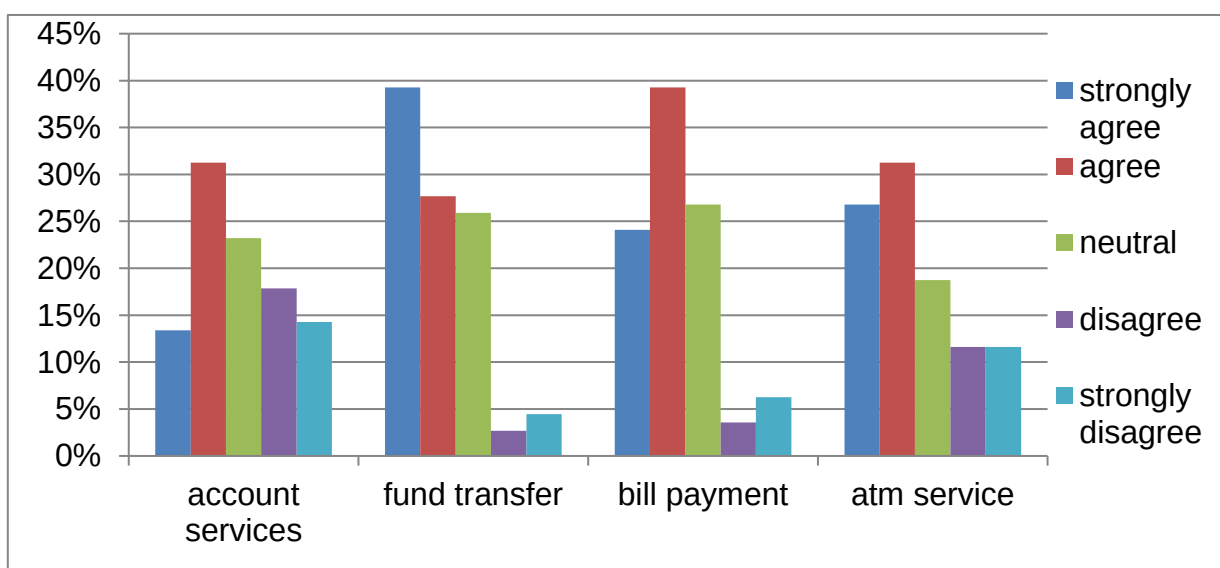
From the above table it is interpreted that the percentage of number of respondents who chose level of satisfaction attained for online fund transfer, requesting demand draft, online recharge and online shopping as strongly agree is 30.36%, 25.89%, 17.86%, 24.11%, Agree is 37.50%, 26.79%, 31.25%, 41.96%, neutral is 14.29%, 22.32%, 19.64%, 28.57%, disagree is 12.50%, 16.96%, 17.86%, 0.89%, and strongly disagree is 5.36%, 8.04%, 13.39%, 4.46% respectively.

**TABLE 4.1.15(A) ONLINE OPERATION TO BE MODIFIED PROMPTLY**

| S<br>I<br>N<br>O | Ratings           | Online banking operations      |                      |                     |                    | Percentage          |                      |                     |                |
|------------------|-------------------|--------------------------------|----------------------|---------------------|--------------------|---------------------|----------------------|---------------------|----------------|
|                  |                   | account<br>s<br>receiva<br>ble | fund<br>transfe<br>r | bill<br>payme<br>nt | atm<br>servic<br>e | account<br>services | fund<br>transfe<br>r | bill<br>payme<br>nt | atm<br>service |
| 1                | Strongly<br>agree | 15                             | 44                   | 27                  | 30                 | 13.39               | 39.29                | 24.11               | 26.79          |
| 2                | Agree             | 35                             | 31                   | 44                  | 35                 | 31.25               | 27.68                | 39.29               | 31.25          |

|   |                   |     |     |     |     |       |       |       |       |
|---|-------------------|-----|-----|-----|-----|-------|-------|-------|-------|
| 3 | Neutral           | 26  | 29  | 30  | 21  | 23.21 | 25.89 | 26.79 | 18.75 |
| 4 | Disagree          | 20  | 3   | 4   | 13  | 17.86 | 2.68  | 3.57  | 11.61 |
| 5 | Strongly disagree | 16  | 5   | 7   | 13  | 14.2  | 4.46  | 6.25  | 11.61 |
|   | TOTAL             | 112 | 112 | 112 | 100 | 100   | 100   | 100   | 100   |

**Source: primary data**



**CHART 4.1.15 (A) Online operation to be modified promptly**

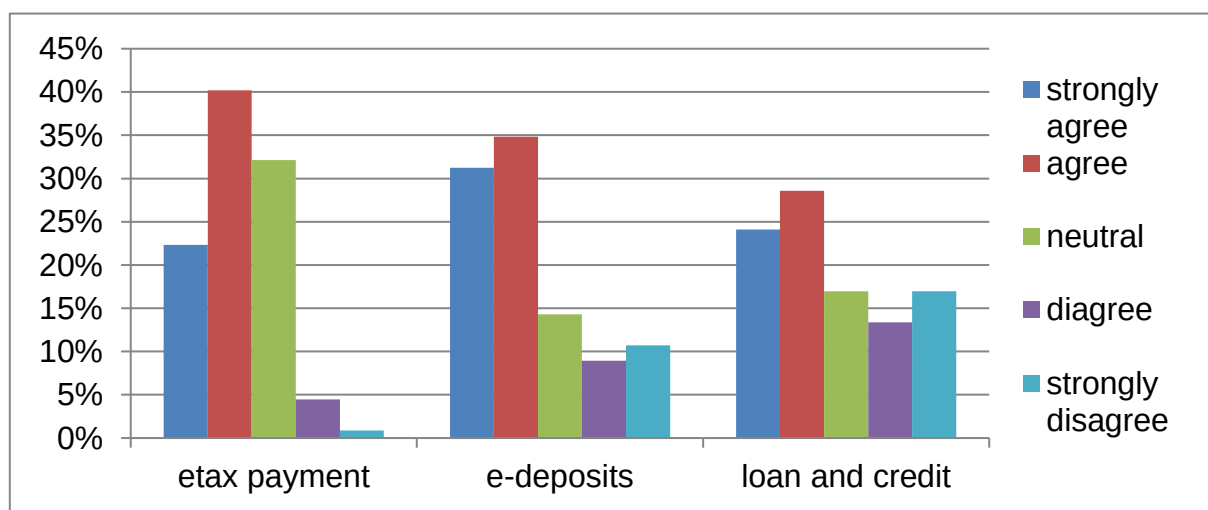
#### **INTERPRETATION**

From the above table it is interpreted that the percentage of number of respondents who chose for online operation to be modified promptly for account services, fund transfer, bill payments, atm services as strongly agree is 13.39%, 39.29%, 24.11%, 26.79%, Agree is 31.25%, 27.68%, 39.29%, 31.25%, neutral is 23.21%, 25.89%, 26.79%, 18.75%, disagree is 17.86%, 2.68%, 3.57%, 11.61% and strongly disagree is 14.29%, 4.46%, 6.25%, 11.61% respectively.

**TABLE 4.1.15(B) ONLINE OPERATION TO BE MODIFIED PROMPTLY**

| SI No. | Ratings           | Online banking operations |            |                 | Percentage   |            |                 |
|--------|-------------------|---------------------------|------------|-----------------|--------------|------------|-----------------|
|        |                   | etax payment              | e-deposits | loan and credit | etax payment | e-deposits | loan and credit |
| 1      | Strongly agree    | 25                        | 35         | 27              | 22.32%       | 31.25%     | 24.11%          |
| 2      | Agree             | 45                        | 39         | 32              | 40.18%       | 34.82%     | 28.57%          |
| 3      | Neutral           | 36                        | 16         | 19              | 32.14%       | 14.29%     | 16.96%          |
| 4      | Disagree          | 5                         | 10         | 15              | 4.46%        | 8.93%      | 13.39%          |
| 5      | Strongly disagree | 1                         | 12         | 19              | 0.89%        | 10.71%     | 16.96%          |
|        | TOTAL             | 112                       | 112        | 112             | 100          | 100        | 100             |

**Source: primary data**

**CHART 4.1.15 (B) Online operation to be modified promptly**

### INTERPRETATION

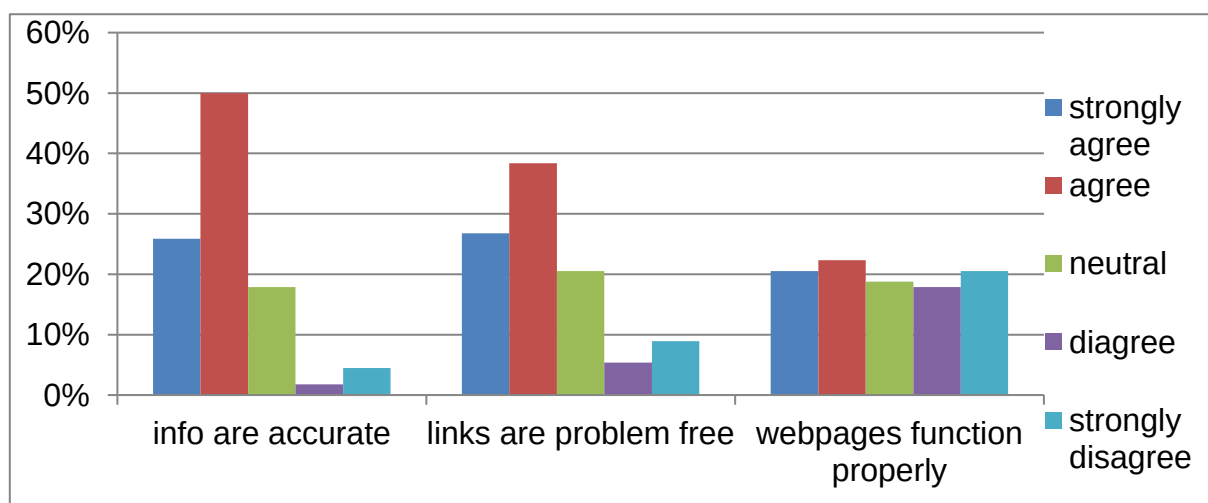
From the above table it is interpreted that the percentage of number of respondents who chose for online operation to be modified promptly for e-tax payments, e-

deposits, loan and credit services as strongly agree is 22.32%, 31.25%, 24.11% ,Agree is 40.18%, 34.82% 28.57%, neutral is 32.14, 14.29%, 16.96%, disagree is 4.46%, 8.93% 13.39% and strongly disagree is 0.89%, 10.71%, 16.96% respectively.

**TABLE 4.1.16(A) RELIABILITY OF ONLINE BANKING SERVICES**

| Sl No. | Ratings           | Reliability       |                        |                           | Percentage        |                        |                            |
|--------|-------------------|-------------------|------------------------|---------------------------|-------------------|------------------------|----------------------------|
|        |                   | info are accurate | links are problem free | webpage function properly | info are accurate | links are problem free | webpages function properly |
| 1      | Strongly agree    | 29                | 30                     | 23                        | 25.89%            | 26.79%                 | 20.54%                     |
| 2      | Agree             | 56                | 43                     | 25                        | 50.00%            | 38.39%                 | 22.32%                     |
| 3      | Neutral           | 20                | 23                     | 21                        | 17.86%            | 20.54%                 | 18.75%                     |
| 4      | Disagree          | 2                 | 6                      | 20                        | 1.79%             | 5.36%                  | 17.86%                     |
| 5      | Strongly disagree | 5                 | 10                     | 23                        | 4.46%             | 8.93%                  | 20.54%                     |
|        | TOTAL             | 112               | 112                    | 112                       | 100               | 100                    | 100                        |

**Source: Primary data**



**Chart 4.1.16(A) Reliability of online banking services**

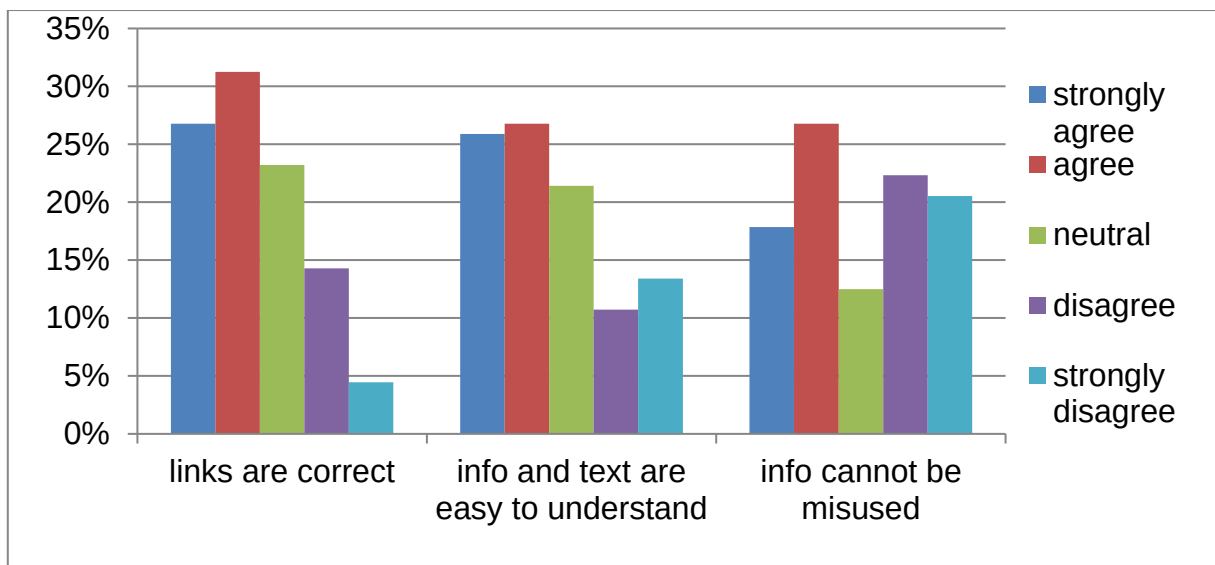
## INTERPRETATION

From the above table it is interpreted that the percentage of number of respondents who chose for reliability for information are accurate, links are problem free, webpage function properly as strongly agree is 25.89%, 26.79% 20.54%, Agree is 50.00%,38.39%, 22.32%, neutral is 17.86%, 20.54%, 18.75%, disagree is 1.79%, 5.36%, 17.86%, and strongly disagree is 4.46%, 8.93%, 20.54% respectively.

**TABLE 4.1.16(B) RELIABILITY OF ONLINE BANKING SERVICES**

| Sl No. | Ratings           | Reliability       |                                      |                        | Percentage        |                                      |                        |
|--------|-------------------|-------------------|--------------------------------------|------------------------|-------------------|--------------------------------------|------------------------|
|        |                   | links are correct | info and text are easy to understand | info cannot be misused | links are correct | info and text are easy to understand | info cannot be misused |
| 1      | Strongly agree    | 30                | 29                                   | 20                     | 26.79%            | 25.89%                               | 17.86%                 |
| 2      | Agree             | 35                | 30                                   | 30                     | 31.25%            | 26.79%                               | 26.79%                 |
| 3      | Neutral           | 26                | 24                                   | 14                     | 23.21%            | 21.43%                               | 12.50%                 |
| 4      | Disagree          | 16                | 12                                   | 25                     | 14.29%            | 10.71%                               | 22.32%                 |
| 5      | Strongly disagree | 5                 | 15                                   | 23                     | 4.46%             | 13.39%                               | 20.54%                 |
|        | TOTAL             | 112               | 112                                  | 112                    | 100               | 100                                  | 100                    |

**Source: Primary data**



**Chart 4.1.16 (B) Reliability of online banking services**

#### INTERPRETATION

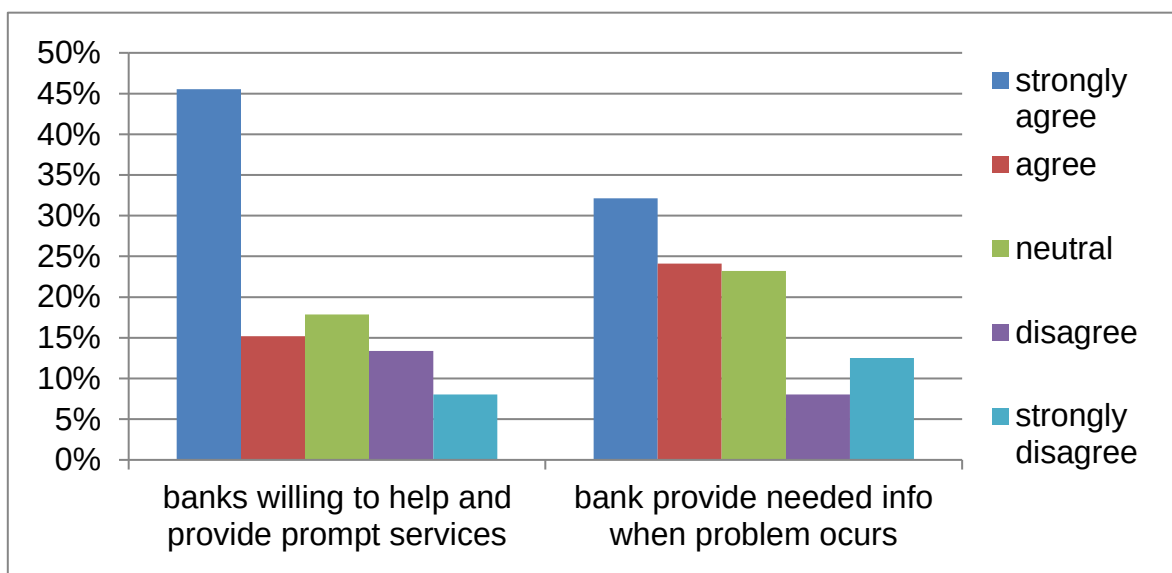
From the above table it is interpreted that the percentage of number of respondents who chose for reliability for information are accurate, links are problem free, webpage function properly as strongly agree is 26.79%, 25.89% 17.86% , Agree is 31.25%, 26.79%, 26.79%, neutral is 23.21%, 21.43%, 12.50%, disagree is 14.29%, 10.71%, 22.32% , and strongly disagree is 4.46%, 13.39%, 20.54% respectively.

**TABLE 4.1.17(A) RATING OF ONLINE BANKING SERVICES BASED ON RESPONSIVENESS**

| Sl No. | Ratings        | Responsiveness                                    |                                              | Percentage                                        |                                              |
|--------|----------------|---------------------------------------------------|----------------------------------------------|---------------------------------------------------|----------------------------------------------|
|        |                | banks willing to help and provide prompt services | bank provide needed info when problem occurs | banks willing to help and provide prompt services | bank provide needed info when problem occurs |
| 1      | Strongly agree | 51                                                | 36                                           | 45.54%                                            | 32.14%                                       |
| 2      | Agree          | 17                                                | 27                                           | 15.18%                                            | 24.11%                                       |
| 3      | Neutral        | 20                                                | 26                                           | 17.86%                                            | 23.21%                                       |

|   |                   |     |     |        |        |
|---|-------------------|-----|-----|--------|--------|
| 4 | Disagree          | 15  | 9   | 13.39% | 8.04%  |
| 5 | Strongly disagree | 9   | 14  | 8.04%  | 12.50% |
|   | TOTAL             | 112 | 112 | 100    | 100    |

**Source: Primary data**



**Chart 4.1.17 (A) Rating of online banking services based on responsiveness**

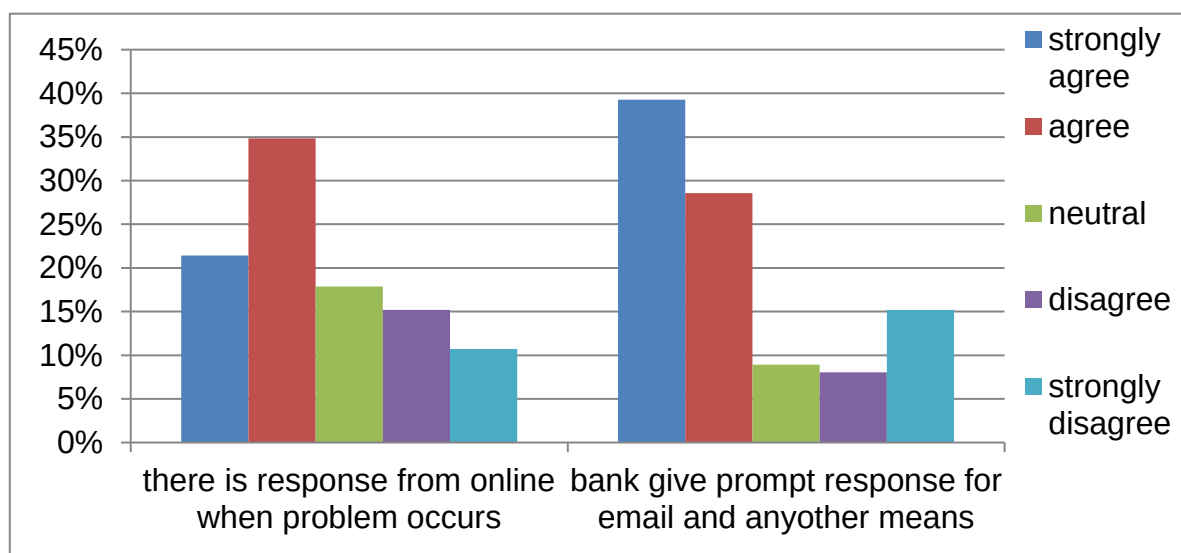
#### **INTERPRETATION**

From the above table it is interpreted that the percentage of number of respondents who chose responsiveness of online banking for banks willing to help and provide prompt services and banks provide needed information when problem occurs as strongly agree is 45.54%, 32.14%, Agree is 15.18%, 24.11%, neutral is 17.86%, 23.21%, disagree is 13.39%, 8.04%, and strongly disagree is 8.04%, 12.50% respectively.

**TABLE 4.1.17(B) RATING OF ONLINE BANKING SERVICES BASED ON RESPONSIVENESS**

| Sl No. | Ratings           | Responsiveness                                    |                                                         | Percentage                                        |                                                         |
|--------|-------------------|---------------------------------------------------|---------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|
|        |                   | there is response from online when problem occurs | bank give prompt response for email and any other means | there is response from online when problem occurs | bank give prompt response for email and any other means |
| 1      | Strongly agree    | 24                                                | 44                                                      | 21.43%                                            | 39.29%                                                  |
| 2      | Agree             | 39                                                | 32                                                      | 34.82%                                            | 28.57%                                                  |
| 3      | Neutral           | 20                                                | 10                                                      | 17.86%                                            | 8.93%                                                   |
| 4      | Disagree          | 17                                                | 9                                                       | 15.18%                                            | 8.04%                                                   |
| 5      | Strongly disagree | 12                                                | 17                                                      | 10.71%                                            | 15.18%                                                  |
|        | TOTAL             | 112                                               | 112                                                     | 100                                               | 100                                                     |

**Source: Primary data**



**Chart 4.1.17 (B) Rating of online banking services based on responsiveness**

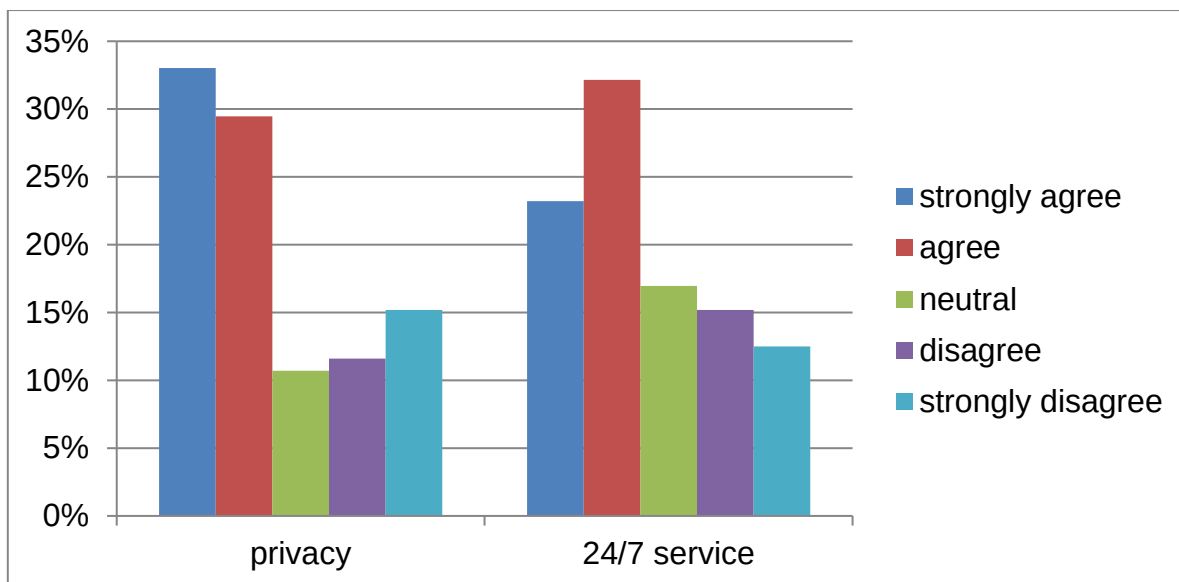
## INTERPRETATION

From the above table it is interpreted that the percentage of number of respondents who chose responsiveness of online banking for banks willing to help and provide prompt services and banks provide needed information when problem occurs as strongly agree is 21.43%,39.29%, Agree is 34.82%, 28.57%, neutral is 17.86%, 8.93%, disagree is 15.18%, 8.04% and strongly disagree is 10.71%, 15.18% respectively.

**TABLE 4.1.18 FACTORS MAKING CUSTOMERS TO AVAIL OR PREFER ONLINE BANKING**

| Sl No. | Ratings           | Factors |              | Percentage |              |
|--------|-------------------|---------|--------------|------------|--------------|
|        |                   | privacy | 24/7 service | privacy    | 24/7 service |
| 1      | Strongly agree    | 37      | 26           | 33.04%     | 23.21%       |
| 2      | Agree             | 33      | 36           | 29.46%     | 32.14%       |
| 3      | Neutral           | 12      | 19           | 10.71%     | 16.96%       |
| 4      | Disagree          | 13      | 17           | 11.61%     | 15.18%       |
| 5      | Strongly disagree | 17      | 14           | 15.18%     | 12.50%       |
|        | TOTAL             | 112     | 112          | 100        | 100          |

**Source: primary data**



**Chart 4.1.18(A) Factors making customers to avail or prefer online banking**

#### **INTERPRETATION**

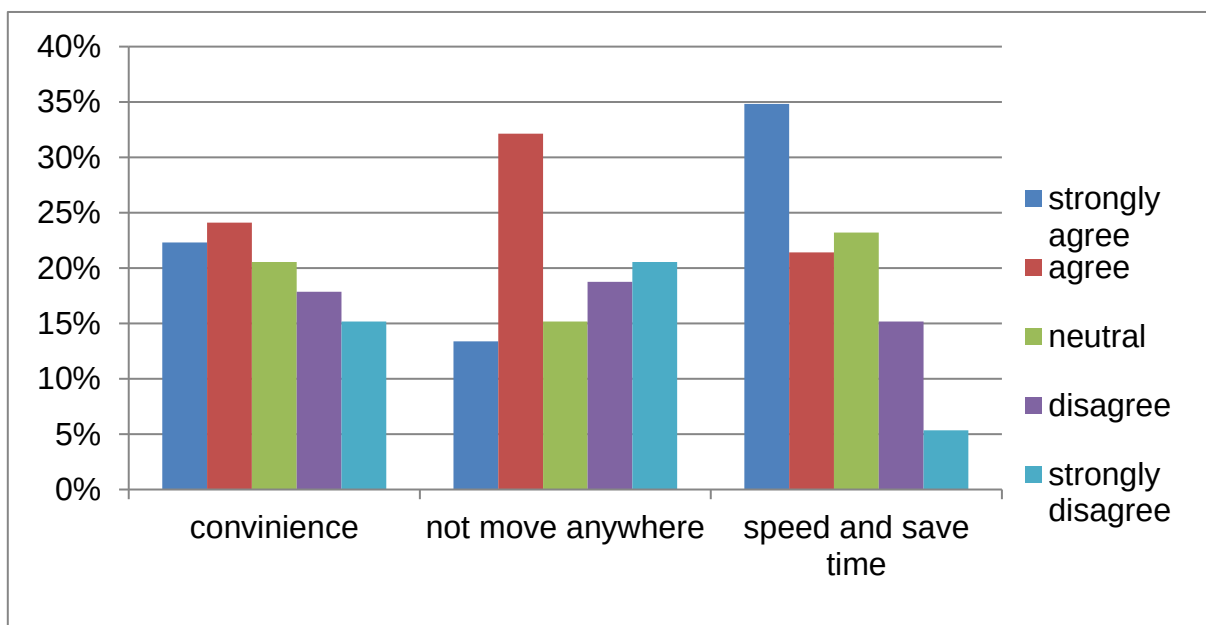
From the above table it is interpreted that the percentage of number of respondents who chose factors to avail online banking for privacy and 24/7 services as strongly agree is 33.04%, 23.21%, Agree is 29.46%, 32.14%, neutral is 10.71%, 16.96%, disagree is 11.61%, 15.18% and strongly disagree is 15.18%, 12.50% respectively.

**TABLE 4.1.18 FACTORS MAKING CUSTOMERS TO AVAIL OR PREFER ONLINE BANKING**

| Sl No. | Ratings        | Factors     |                   |                     | Percentage  |                   |                     |
|--------|----------------|-------------|-------------------|---------------------|-------------|-------------------|---------------------|
|        |                | convenience | not move anywhere | speed and save time | convenience | not move anywhere | speed and save time |
| 1      | Strongly agree | 25          | 15                | 39                  | 22.32%      | 13.39%            | 34.82%              |

|   |                   |     |     |     |        |        |        |
|---|-------------------|-----|-----|-----|--------|--------|--------|
| 2 | Agree             | 27  | 36  | 24  | 24.11% | 32.14% | 21.43% |
| 3 | Neutral           | 23  | 17  | 26  | 20.54% | 15.18% | 23.21% |
| 4 | Disagree          | 20  | 21  | 17  | 17.86% | 18.75% | 15.18% |
| 5 | Strongly disagree | 17  | 23  | 6   | 15.18% | 20.54% | 5.36%  |
|   | TOTAL             | 112 | 112 | 112 | 100    | 100    | 100    |

**Source: primary data**



**Chart 4.1.18(A) Factors making customers to avail or prefer online banking**

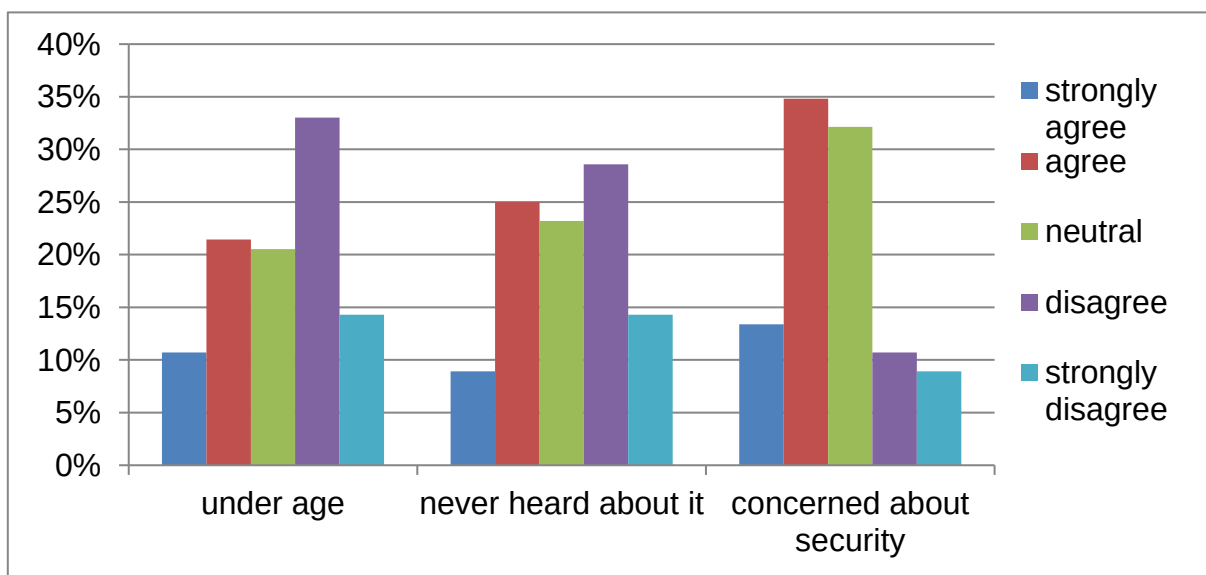
#### **INTERPRETATION**

From the above table it is interpreted that the percentage of number of respondents who chose factors to avail online banking for convenience, not to move anywhere, as strongly agree is 23.32%, 13.39%, 34.82%, Agree is 24.11%, 32.14%, 21.43%, neutral is 20.54%, 15.18%, 23.21%, disagree is 17.86%, 18.75%, 15.18% and strongly disagree is 15.18%, 20.54%, 5.36% respectively.

**TABLE 4.1.19(A) REASONS FOR NOT OPENING INTERNET BANKING ACCOUNT**

| Sl No. | Ratings           | reasons   |                      |                          | Percentage |                      |                          |
|--------|-------------------|-----------|----------------------|--------------------------|------------|----------------------|--------------------------|
|        |                   | under age | never heard about it | concerned about security | under age  | never heard about it | concerned about security |
| 1      | Strongly agree    | 12        | 10                   | 15                       | 10.71%     | 8.93%                | 13.39%                   |
| 2      | Agree             | 24        | 28                   | 39                       | 21.43%     | 25.00%               | 34.82%                   |
| 3      | Neutral           | 23        | 26                   | 36                       | 20.54%     | 23.21%               | 32.14%                   |
| 4      | Disagree          | 37        | 32                   | 12                       | 33.04%     | 28.57%               | 10.71%                   |
| 5      | Strongly disagree | 16        | 16                   | 10                       | 14.29%     | 14.29%               | 8.93%                    |
|        | TOTAL             | 112       | 112                  | 112                      | 100        | 100                  | 100                      |

Source: primary data



### Chart 4.1.19(A) reasons for not opening internet banking account

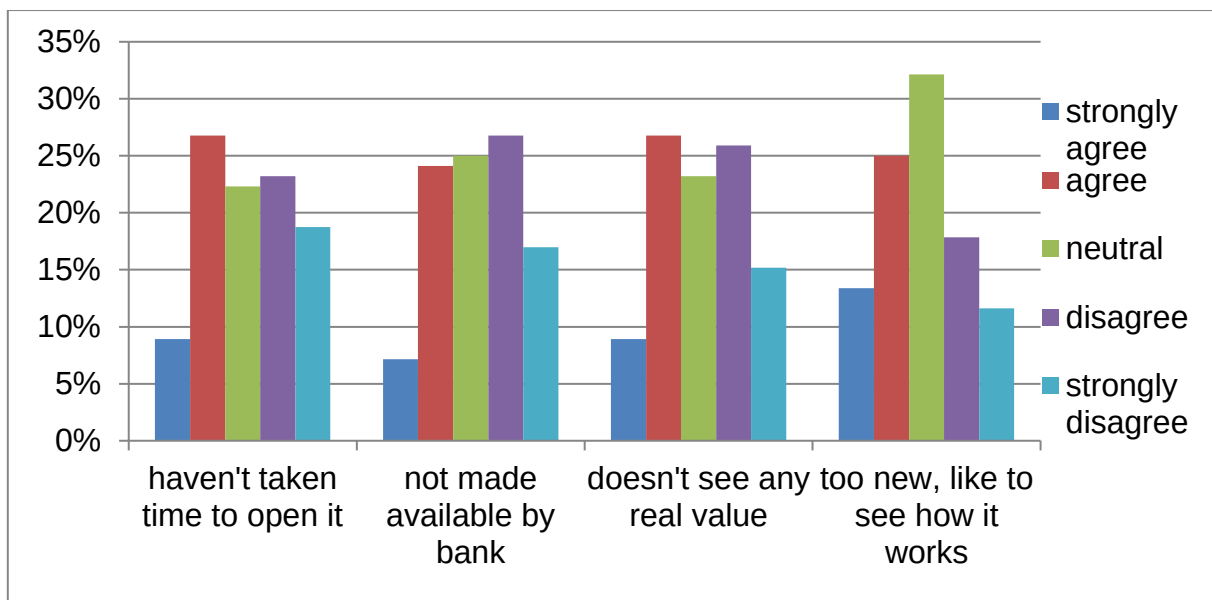
#### INTERPRETATION

From the above table it is interpreted that the percentage of number of respondents who chose the reason for not opening an internet banking account for under age, never heard about it and concerned about security as strongly agree is 10.71%, 8.93%, 13.39%, Agree is 21.43%, 25%, 34.82% neutral is 20.54%, 23.21%, 32.14%, disagree is 33.04%, 27.57%, 10.71%, and strongly disagree is 14.29%, 4.29%, 8.93% respectively.

**TABLE 4.1.19(B) REASONS FOR NOT OPENING INTERNET BANKING ACCOUNT**

| S<br>I<br>N<br>O<br>. | Ratings              | Reasons                                |                                         |                                         |                                                  | Percentage                             |                                         |                                         |                                            |
|-----------------------|----------------------|----------------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------------------------|----------------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------------------|
|                       |                      | haven't<br>taken<br>time to<br>open it | not<br>made<br>availab<br>le by<br>bank | doesn'<br>t see<br>any<br>real<br>value | too<br>new,<br>like to<br>see<br>how it<br>works | haven't<br>taken<br>time to<br>open it | not<br>made<br>availab<br>le by<br>bank | doesn'<br>t see<br>any<br>real<br>value | too new,<br>like to<br>see how<br>it works |
| 1                     | Strongly<br>agree    | 10                                     | 8                                       | 10                                      | 15                                               | 8.93                                   | 7.14                                    | 8.93                                    | 13.39                                      |
| 2                     | Agree                | 30                                     | 27                                      | 30                                      | 28                                               | 26.79                                  | 24.11                                   | 26.79                                   | 25.00                                      |
| 3                     | Neutral              | 25                                     | 28                                      | 26                                      | 36                                               | 22.32                                  | 25.00                                   | 23.21                                   | 32.14                                      |
| 4                     | Disagree             | 26                                     | 30                                      | 29                                      | 20                                               | 23.21                                  | 26.79                                   | 25.89                                   | 17.86                                      |
| 5                     | Strongly<br>disagree | 21                                     | 19                                      | 17                                      | 13                                               | 18.75                                  | 16.96                                   | 15.18                                   | 11.61                                      |
|                       | TOTAL                | 112                                    | 112                                     | 112                                     | 100                                              | 100                                    | 100                                     | 100                                     | 100                                        |

**Source: Primary data**



**Chart 4.1.19(B) reasons for not opening internet banking account**

#### INTERPRETATION

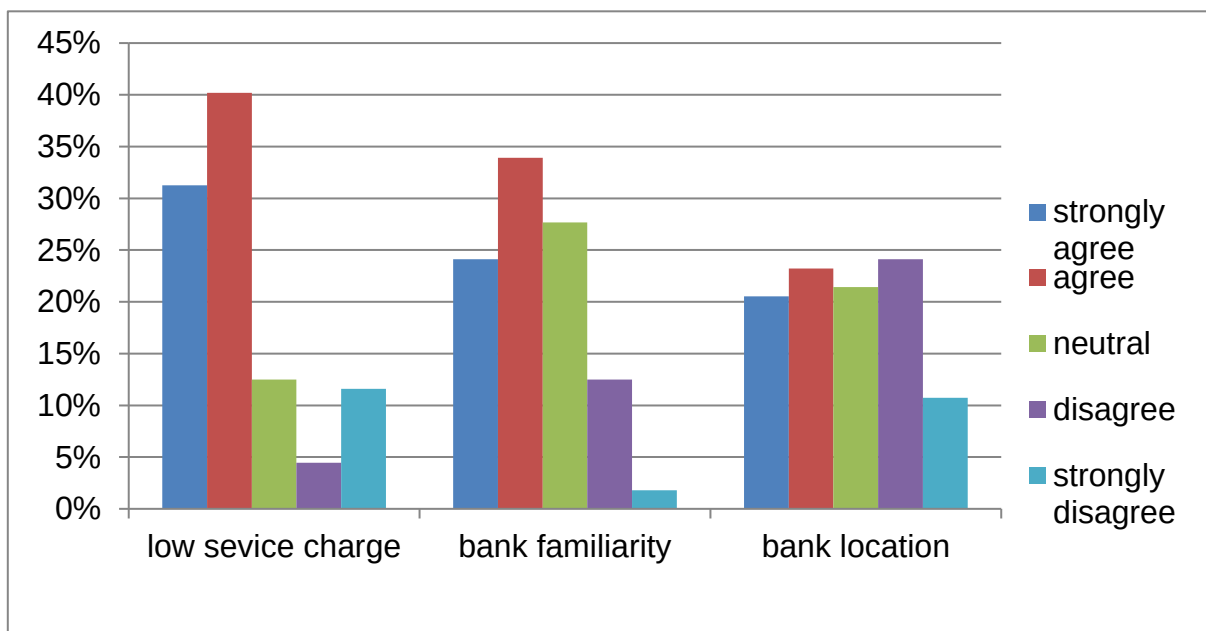
From the above table it is interpreted that the percentage of number of respondents who chose the reason for not opening an internet banking account for haven't taken time to open IB, not made available by bank, doesn't see any real value, too new like to see how it works as strongly agree is 8.93%, 7.14%, 8.93%, 13.39%, Agree is 26.79%, 24.11%, 26.79%, 25%, neutral is 22.32%, 25%, 23.31%, 32.14%, disagree is 23.21%, 26.79%, 25.89%, 17.86% and strongly disagree is 18.75%, 16.96%, 15.18%, 11.61% respectively.

**TABLE 4.1.20(A) FACTORS IMPORTANT FOR CHOOSING ONLINE BANKING**

| Sl No. | Ratings        | reasons            |                  |               | Percentage         |                  |               |
|--------|----------------|--------------------|------------------|---------------|--------------------|------------------|---------------|
|        |                | low service charge | bank familiarity | bank location | low service charge | bank familiarity | bank location |
| 1      | Strongly agree | 35                 | 27               | 23            | 31.25%             | 24.11%           | 20.54%        |
| 2      | Agree          | 45                 | 38               | 26            | 40.18%             | 33.93%           | 23.21%        |

|   |                   |     |     |     |        |        |        |
|---|-------------------|-----|-----|-----|--------|--------|--------|
| 3 | Neutral           | 14  | 31  | 24  | 12.50% | 27.68% | 21.43% |
| 4 | Disagree          | 5   | 14  | 27  | 4.46%  | 12.50% | 24.11% |
| 5 | Strongly disagree | 13  | 2   | 12  | 11.61% | 1.79%  | 10.71% |
|   | TOTAL             | 112 | 112 | 112 | 100    | 100    | 100    |

**Source; Primary data**



**Chart 4.1.20(A) Factors important for choosing online banking**

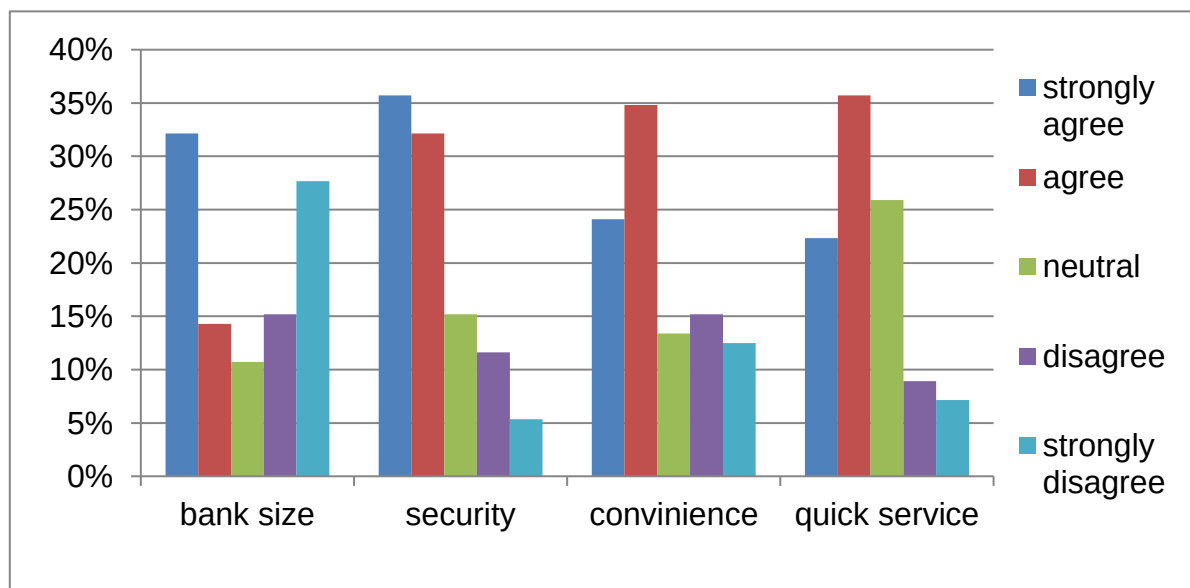
#### **INTERPRETATION**

From the above table it is interpreted that the percentage of number of respondents who chose the factors important for choosing online banking as for low service charge, bank familiarity, bank location as strongly agree is 31.25%, 24.11%, 20.54%, Agree is 40.18%, 33.93%, 23.21%, neutral is 12.50%, 27.68%, 21.43%, disagree is 4.46%, 12.50%, 24.11% and strongly disagree is 11.61%, 1.79%, 10.71% respectively.

**TABLE 4.1.20(B) FACTORS IMPORTANT FOR CHOOSING ONLINE BANKING**

| S<br>I<br>N<br>O<br>. | Ratings           | Reasons   |          |             |               | Percentage |          |             |               |
|-----------------------|-------------------|-----------|----------|-------------|---------------|------------|----------|-------------|---------------|
|                       |                   | bank size | security | convenience | quick service | bank size  | security | convenience | quick service |
| 1                     | Strongly agree    | 36        | 40       | 27          | 25            | 32.14      | 35.71    | 24.11       | 22.32         |
| 2                     | Agree             | 16        | 36       | 39          | 40            | 14.29      | 32.14    | 34.8        | 35.71         |
| 3                     | Neutral           | 12        | 17       | 15          | 29            | 10.71      | 15.18    | 13.39       | 25.89         |
| 4                     | Disagree          | 17        | 13       | 17          | 10            | 15.18      | 11.61    | 15.18       | 8.93          |
| 5                     | Strongly disagree | 31        | 6        | 14          | 8             | 27.68      | 5.36     | 12.50       | 7.14          |
|                       | TOTAL             | 112       | 112      | 112         | 100           | 100        | 100      | 100         | 100           |

**Source: Primary data**



**Chart 4.1.20(B) Factors important for choosing online banking**

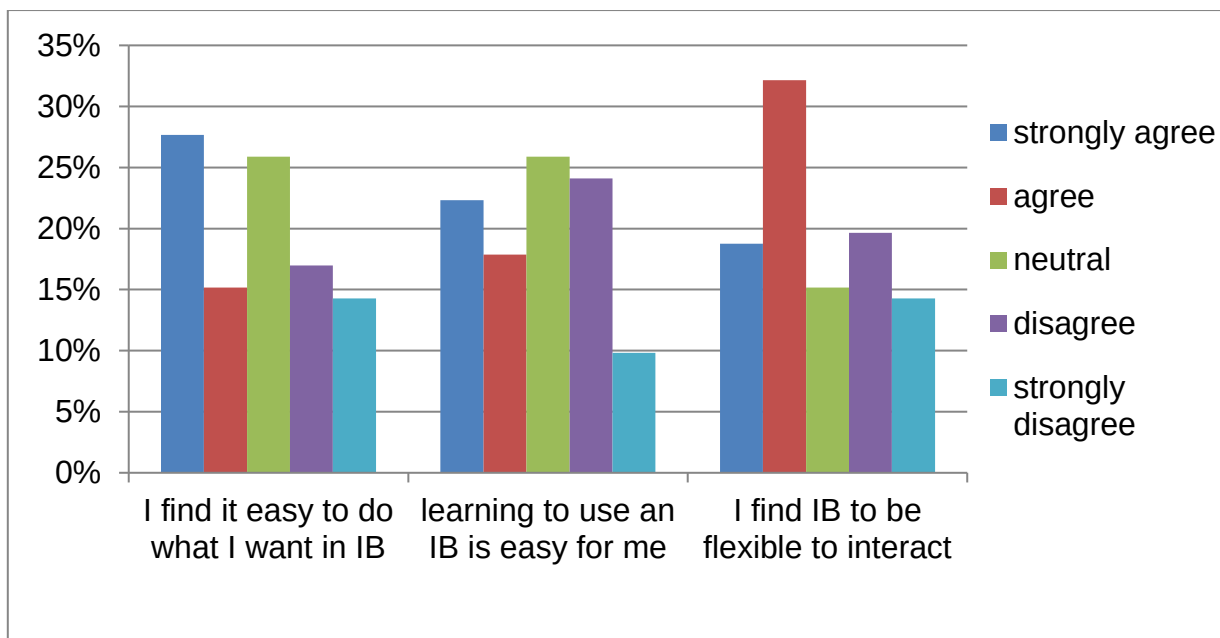
## INTERPRETATION

From the above table it is interpreted that the percentage of number of respondents who chose the factors important for choosing online banking for size of bank, security, convenience, quick services as strongly agree is 32.14%, 35.71%, 24.11%, 22.32%, Agree is 14.29%, 32.14%, 34.82%, 35.71%, neutral is 10.71%, 15.18%, 13.39%, 25.89%, disagree is 15.18%, 11.61%, 15.18%, 8.93% and strongly disagree is 27.68%, 5.36%, 12.50%, 7.14% respectively.

**TABLE 4.1.21(A) ATTITUDE TOWARDS ONLINE BANKING SERVICES BASED ON CUSTOMER'S PERSPECTIVE**

| SINo. | Ratings           | reasons                                |                                      |                                      | Percentage                             |                                      |                                      |
|-------|-------------------|----------------------------------------|--------------------------------------|--------------------------------------|----------------------------------------|--------------------------------------|--------------------------------------|
|       |                   | I find it easy to do what I want in IB | learning to use an IB is easy for me | I find IB to be flexible to interact | I find it easy to do what I want in IB | learning to use an IB is easy for me | I find IB to be flexible to interact |
| 1     | Strongly agree    | 31                                     | 25                                   | 21                                   | 27.68%                                 | 22.32%                               | 18.75%                               |
| 2     | Agree             | 17                                     | 20                                   | 36                                   | 15.18%                                 | 17.86%                               | 32.14%                               |
| 3     | Neutral           | 29                                     | 29                                   | 17                                   | 25.89%                                 | 25.89%                               | 15.18%                               |
| 4     | Disagree          | 19                                     | 27                                   | 22                                   | 16.96%                                 | 24.11%                               | 19.64%                               |
| 5     | Strongly disagree | 16                                     | 11                                   | 16                                   | 14.29%                                 | 9.82%                                | 14.29%                               |
|       | TOTAL             | 112                                    | 112                                  | 112                                  | 100                                    | 100                                  | 100                                  |

**Source: Primary data**



**Chart 4.1.21 Attitude towards online banking services based on customer's perspective**

#### INTERPRETATION

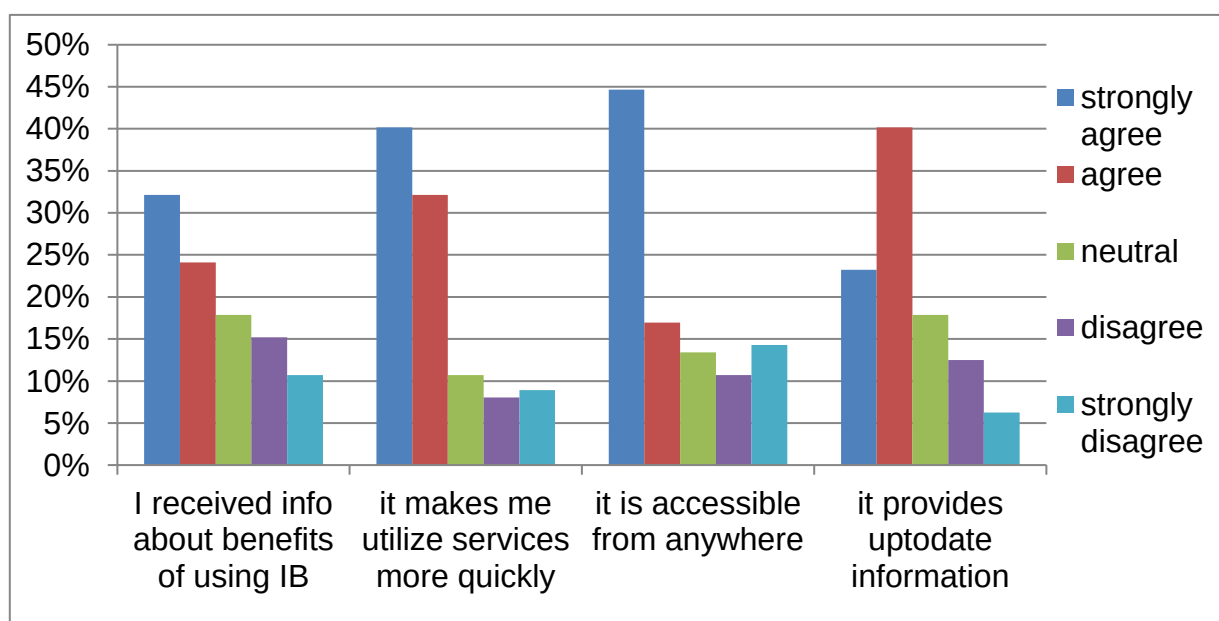
From the above table it is interpreted that the percentage of number of respondents who chose the attitude towards online banking service based on their perspective for easy to do what they want, learning to use it is easy and find it to be flexible to interact as strongly agree is 27.68%, 22.32%, 18.75%, Agree is 15.18%, 17.86%, 32.14%, neutral is 25.86%, 25.89%, 15.18%, disagree is 16.59%, 24.11%, 19.67% and strongly disagree is 14.29%, 9.82% 14.29% respectively.

**TABLE 4.1.21(B) ATTITUDE TOWARDS ONLINE BANKING SERVICES BASED ON CUSTOMER'S PERSPECTIVE**

| S<br>I<br>N<br>O | Ratings | Reasons                                              |                                                   |                                                 |                                                      | Percentage                                           |                                                          |                                                 |                                                      |
|------------------|---------|------------------------------------------------------|---------------------------------------------------|-------------------------------------------------|------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|
|                  |         | I receive<br>d info<br>about<br>benefits<br>of using | it<br>makes<br>me<br>utilize<br>service<br>s more | it is<br>acces<br>sible<br>from<br>anywh<br>ere | it<br>provide<br>s up-to-<br>date<br>informa<br>tion | I receive<br>d info<br>about<br>benefits<br>of using | it makes<br>me<br>utilize<br>services<br>more<br>quickly | it is<br>acces<br>sible<br>from<br>anyw<br>here | it<br>provide<br>s up-to-<br>date<br>informa<br>tion |

|   |                   | IB  | quickly |     |     | IB    |       |       |       |
|---|-------------------|-----|---------|-----|-----|-------|-------|-------|-------|
| 1 | Strongly agree    | 36  | 45      | 50  | 26  | 32.14 | 40.18 | 44.64 | 23.21 |
| 2 | Agree             | 27  | 36      | 19  | 45  | 24.11 | 32.14 | 16.96 | 40.18 |
| 3 | Neutral           | 20  | 12      | 15  | 20  | 17.86 | 10.71 | 13.39 | 17.86 |
| 4 | Disagree          | 17  | 9       | 12  | 14  | 15.18 | 8.04  | 10.71 | 12.50 |
| 5 | Strongly disagree | 12  | 10      | 16  | 7   | 10.71 | 8.93  | 14.29 | 6.25  |
|   | TOTAL             | 112 | 112     | 112 | 100 | 100   | 100   | 100   | 100   |

**Source: Primary data**



**Chart 4.1.21(B) Attitude towards online banking services based on customer's perspective**

#### **INTERPRETATION**

From the above table it is interpreted that the percentage of number of respondents who chose the attitude towards online banking service based on their perspective for received the benefits of Ib, makes me to utilize service more quickly, accessible from anywhere, provide up-to-date information as strongly agree is 32.14%, 40.18%, 44.64%, 23.21%, Agree is 24.11%, 32.14%, 16.96%, 40.18%, neutral is 17.86%, 10.71%, 13.39%, 17.86% , disagree is 15.18%, 8.04%, 10.71%, 12.50%, and strongly disagree is 10.71%, 8.93%, 14.29%, 6.25% respectively.

## 4.2 CORRELATION

Correlation analysis is the statistical tool used to measure the degree to which two variables are linearly related to each other. Correlation measures the degree of association or relationship between two variables.

**TABLE 4.2.1 Education and Satisfaction level attained**

|                             |                       | Education qualification | Satisfaction level attained |
|-----------------------------|-----------------------|-------------------------|-----------------------------|
| Education qualification     | Pearson's correlation | 1                       | 0.178                       |
|                             | Sig (2-tailed)        | -                       | 0.060                       |
|                             | N                     | 112                     | 112                         |
| Satisfaction level attained | Pearson's correlation | 0.178                   | 1                           |
|                             | Sig (2-tailed)        | 0.060                   | -                           |
|                             | N                     | 112                     | 112                         |

## INFERENCE-

From the above table it is inferred that, since value of  $r$  is positive, and the significance level is more than 0.05, there exist a positive relationship between education qualification and satisfaction level attained.

**TABLE 4.2.2 Age of the respondents and factors for preferring online banking**

|                                       |                       | Age of the respondents | Factors for preferring online banking |
|---------------------------------------|-----------------------|------------------------|---------------------------------------|
| Age of the respondents                | Pearson's correlation | 1                      | 0.163                                 |
|                                       | Sig (2-tailed)        | -                      | 0.086                                 |
|                                       | N                     | 112                    | 112                                   |
| Factors for preferring online banking | Pearson's correlation | 0.163                  | 1                                     |
|                                       | Sig (2-tailed)        | 0.086                  | -                                     |
|                                       | N                     | 112                    | 112                                   |

**INFERENCE-**

From the above table it is inferred that, since the value  $r$  is positive, and the significance level is more than 0.05, there is a positive relationship between the age of the respondents and the factors for preferring online banking.

**4.3 ONE WAY ANOVA****TABLE 4.3.1 gender and online banking as a better substitute based on satisfaction**

H0- there is no significant difference between gender and online banking as better substitute based on satisfaction level.

H1- there is significant difference between gender and online banking as better substitute based on satisfaction level.

|                | Sum of squares | df  | Mean square | F     | Sig.  |
|----------------|----------------|-----|-------------|-------|-------|
| Between groups | 1.582          | 3   | 0.527       | 2.163 | 0.097 |
| Within groups  | 26.337         | 108 | 0.244       |       |       |
| total          | 27.920         | 111 |             |       |       |

### **INTERPRETATION-**

From the above table since the significance level is more than 0.05 accept alternate hypothesis and reject Null hypothesis. Hence there is significant difference that is the relationship is negative between gender and online banking as a better substitute based on customer satisfaction.

## CHAPTER-5

### 5.1 FINDINGS

- Majority (39.3%) of the respondents fall under age category of 20-35.
- Majority (52.7) of the respondents are belonging to the Female gender.
- Majority (30.4%) of the respondents are qualified as undergraduates as education qualification.
- Majority (37.50%) of the respondent's designation belong to salaried category.
- Majority (42.00%) of the respondents have rated good as overall rating for online banking services.
- Majority (29.5%) of the respondents belong to the category for frequency of online banking as monthly users.
- Majority (32.00%) of the respondents fall under Agree for extent of usage of all online banking services.
- Majority (35.73%) of respondents had selected Agree for bank educating about online banking services.
- Majority (45.57%) of respondents had selected agree as rating for awareness of security threats and frauds in online banking.
- Majority (25%) of respondents had selected Agree for familiarity of methods of secured online transactions.
- Majority (39.29%) of the respondents had selected strongly agree for online banking as a better substitute to traditional banking based on customers perspective.
- Majority (28.57%) of the respondents had selected strongly agree for online banking as a better substitute to traditional banking based on customer satisfaction.
- Majority (27.68%) of the respondents of the respondents had selected agree for likeliness to open an internet bank account in the succeeding period.

- Majority (29.46%) of the respondents has selected agree for level of satisfaction attained in fund transfer.
- Majority (36.61) of the respondents has selected strongly agree for level of satisfaction attained in atm banking.
- Majority (27.68%) of the respondents has selected agree for level of satisfaction attained in balance enquiry.
- Majority (37.50%) of the respondents has selected agree for level of satisfaction attained in online fund transfer.
- Majority (26.79%) of the respondents has selected agree for level of satisfaction attained in requesting demand draft.
- Majority (31.25%) of the respondents has selected agree for level of satisfaction attained in online recharge.
- Majority (41.96%) of the respondents has selected agree for level of satisfaction attained in online shopping.
- Majority (31.25%) of the respondents has selected agree for online banking operation to be modified promptly for account services
- Majority (39.29%) of the respondents has selected strongly agree for online banking operation to be modified promptly for fund transfer.
- Majority (39.29%) of the respondents has selected agree for online banking operation to be modified promptly for bill payments.
- Majority (31.25%) of the respondents has selected agree for online banking operation to be modified promptly for atm services.
- Majority (40.18%) of the respondents has selected agree for online banking operation to be modified promptly for e-tax payments.
- Majority (34.82%) of the respondents has selected agree for online banking operation to be modified promptly for e-deposits.
- Majority (28.57%) of the respondents has selected agree for online banking operation to be modified promptly for loan and credit services.
- Majority (50.00%) of the respondents had selected agree as rating for reliability that info are accurate.

- Majority (38.39%) of the respondents had selected agree as rating for reliability that links are problem free.
- Majority (22.32%) of the respondents had selected agree as rating for reliability that WebPages functions properly.
- Majority (31.25%) of the respondents had selected agree as rating for reliability that links are correct.
- Majority (26.76%) of the respondents had selected agree as rating for reliability that info and text are easy to understand.
- Majority (26.79%) of the respondents had selected agree as rating for reliability that info cannot be misused.
- Majority (45.54%) of the respondents had selected strongly agree as ratings for responsiveness- banks willing to help and provide prompt services.
- Majority (32.14%) of the respondents had selected strongly agree as ratings for responsiveness- banks provide needed info when problem occurs.
- Majority (34.82%) of the respondents had selected agree as ratings for responsiveness- there is response from online when problem occurs.
- Majority (39.29%) of the respondents had selected strongly agree as ratings for responsiveness- bank give prompt response for email and any other means.
- Majority (33.04%) of the respondents selected strongly agree as rating of factor to prefer online banking- privacy
- Majority (24.11%) of the respondents selected agree as rating of factor to prefer online banking-convenience.
- Majority (32.14%) of the respondents selected agree as rating of factor to prefer online banking-24/7 services.
- Majority (32.14%) of the respondents selected agree as rating of factor to prefer online banking- not to move anywhere.
- Majority (34.82%) of the respondents selected strongly agree as rating of factor to prefer online banking-speed and save time.

- Majority (33.04%) of respondents have selected disagree as factor for not opening internet bank account-under age.
- Majority (28.57%) of respondents have selected disagree as factor for not opening internet bank account- never heard about it.
- Majority (34.82%) of respondents have selected agree as factor for not opening internet bank account -concerned about security.
- Majority (26.79%) of respondents have selected agree as factor for not opening internet bank account- haven't taken time to open IB.
- Majority (26.79%) of respondents have selected disagree as factor for not opening internet bank account- not made available by bank.
- Majority (26.79%) of respondents have selected agree as factor for not opening internet bank account- doesn't see any real value.
- Majority (27.68%) of the respondents had selected strongly agree as attitude based on their perspective-I find it easy to work with IB.
- Majority (25.89%) of the respondents had selected neutral as attitude based on their perspective- learning to use an IB is easy for me.
- Majority (32.14%) of the respondents had selected agree as attitude based on their perspective- I find IB to be flexible to interact.
- Majority (32.14%) of the respondents had selected agree as attitude based on their perspective- I received info about benefits of using IB.
- Majority (40.18%) of the respondents had selected strongly agree as attitude based on their perspective- it makes me utilize services more quickly.
- Majority (44.64%) of the respondents had selected strongly agree as attitude based on their perspective- it is accessible from anywhere.
- Majority (40.18%) of the respondents had selected agree as attitude based on their perspective- it provides up-to-date information.
- There is between positive relationship the age of the respondents and the factors for preferring online banking services.
- There is a positive relationship between education qualification and satisfaction level attained.

- There is significant difference between gender and online banking as a better substitute.

## **5.2 SUGGESTIONS**

- People keeping in mind the current scenario should themselves shift to online banking and e-wallet payment services to carry out their financial transactions.
- Government should conduct awareness drives to educate people about the need to switch to online banking and its benefits.
- RBI should promote these online services and reduce the charges levied on e-wallet and UPI payments.
- Biometric ATM machines can also use to prevent hacking of password and to make easy for illiterate people.
- Adult customer always prefers advanced technology but sometimes lack of knowledge they are unable to access such technologies. The fact that people have positive perceptions about online banking should be treated with great value. This is because one bad experience can result in customer discontinuation of the E-banking service

## **5.3 CONCLUSIONS**

The banking sector has been a pioneer and a leader in the electronic business world in recent years. The electronic banking revolution has primarily changed the method of the business of banking by scaling borders and limits and by bringing all about new opportunities and pathways. In countries like India, electronic banking has strongly affected the strategic business considerations and complications for banks by importantly cutting down costs such as transaction cost and delivery cost of services offered. It must be taken into consideration that however, that while electronic banking provides many benefits to customers and that to the banks, it also aggravates and reduces the hindrances of traditional banking risks. Compared to that of the developed countries, developing countries are facing many impediments that affect the successful and further implementation of online banking initiatives. One of

the benefits that the banks experience while using electronic banking is that is increased customer satisfaction. This is due to that the customers may access their own accounts whenever and from anywhere and they can get involved more and thereby creating relationships with banks. Banks should also provide their customers with convenience in the sense meaning offering service that are through several distribution channels like ATM, Internet and physical branches and that have more functions available through online. Other benefits are expanded and variety product offerings and extended geographic reach. With all these steps, the banks can obtain success on that of the financial markets. But e-banking still remains to be a difficult business and banks face a lot of challenges.

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## APPENDIX-1

### QUESTIONNAIRE

- 1) What is your name?
- 2) What is your gender?
  - a) Male
  - b) Female
  - c) Others
- 3) Which age group do you belong?
  - A) Below 20
  - b) 20-35
  - c) 35-50
  - d) Above 50
- 4) What is your designation?
- 5) What is your education qualification?
  - a) SSLC
  - b) HSC
  - c) UG
  - d) PG
  - e) Others
- 6) Kindly rate the level of satisfaction attained from the following online banking services.

| particulars          | Excellent | Good | average | poor | Hard to say |
|----------------------|-----------|------|---------|------|-------------|
| Fund transfer        |           |      |         |      |             |
| ATM banking          |           |      |         |      |             |
| Balance enquiry      |           |      |         |      |             |
| Request demand draft |           |      |         |      |             |

|                      |  |  |  |  |  |
|----------------------|--|--|--|--|--|
| Online recharge      |  |  |  |  |  |
| Online fund transfer |  |  |  |  |  |
| Online shopping      |  |  |  |  |  |

7) Do you think online banking is a better substitute to traditional banking system based on your satisfaction level?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

8) In your opinion which operation should be modifies promptly dor better service in future?

| particulars            | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|------------------------|----------------|-------|---------|----------|-------------------|
| Account services       |                |       |         |          |                   |
| Fund transfer          |                |       |         |          |                   |
| Bill payments          |                |       |         |          |                   |
| E-tax payments         |                |       |         |          |                   |
| e-deposits             |                |       |         |          |                   |
| Loan & credit services |                |       |         |          |                   |

9) Give your overall rating for online banking services.

- a) Excellent
- b) Good
- c) Average
- d) Poor

e) Hard to say

10) Kindly rate the reliability of online banking services.

| particulars                                         | Strongly agree | agree | Neutral | disagree | Strongly disagree |
|-----------------------------------------------------|----------------|-------|---------|----------|-------------------|
| Information provided in websites are accurate       |                |       |         |          |                   |
| Links are problem free                              |                |       |         |          |                   |
| i can rely on web pages that function properly      |                |       |         |          |                   |
| Links provided by banks are correct                 |                |       |         |          |                   |
| Information provided are easy to understand         |                |       |         |          |                   |
| I can rely on information given and are not misused |                |       |         |          |                   |

11) Based on the responsiveness of the online banking services rate the following.

| particulars                                                    | Strongly agree | agree | neutral | disagree | Strongly disagree |
|----------------------------------------------------------------|----------------|-------|---------|----------|-------------------|
| Banks are willing to help customer and provide prompt services |                |       |         |          |                   |

|                                                                            |  |  |  |  |  |
|----------------------------------------------------------------------------|--|--|--|--|--|
| Banks provides appropriate information to the customer when problem occurs |  |  |  |  |  |
| There is response from e-banking to the customer when problem occurs       |  |  |  |  |  |
| Bank gives prompt responses for the requests by email or any other means   |  |  |  |  |  |

12) What are the factors making you avail or prefer online banking services?

| particulars          | Strongly agree | agree | neutral | disagree | Strongly disagree |
|----------------------|----------------|-------|---------|----------|-------------------|
| Privacy              |                |       |         |          |                   |
| 24/7 services        |                |       |         |          |                   |
| Convenience          |                |       |         |          |                   |
| Not to move anywhere |                |       |         |          |                   |
| Speed and save time  |                |       |         |          |                   |

13) For your choice of online banking please indicate how much each of the following factors are important to you?

| particulars | Strongly agree | agree | neutral | disagree | Strongly disagree |
|-------------|----------------|-------|---------|----------|-------------------|
|             |                |       |         |          |                   |

|                         |  |  |  |  |  |
|-------------------------|--|--|--|--|--|
| Lower service charge    |  |  |  |  |  |
| Familiarity of the bank |  |  |  |  |  |
| Location of the bank    |  |  |  |  |  |
| Size of the bank        |  |  |  |  |  |
| Security                |  |  |  |  |  |
| Convenience             |  |  |  |  |  |
| Quick service           |  |  |  |  |  |

14)What are the main reasons that you have not opened an internet bank account?

| Particulars                           | Strongly agree. | agree | neutral | disagree | Strongly disagree |
|---------------------------------------|-----------------|-------|---------|----------|-------------------|
| Underage                              |                 |       |         |          |                   |
| Haven't taken time to open an account |                 |       |         |          |                   |
| Not available in the bank             |                 |       |         |          |                   |
| Concerned about security              |                 |       |         |          |                   |

|                                                         |  |  |  |  |  |
|---------------------------------------------------------|--|--|--|--|--|
| Never heard about that                                  |  |  |  |  |  |
| Don't see any real value in having this type of account |  |  |  |  |  |
| Too new, and would like to see how it works             |  |  |  |  |  |

15)How likely will you open an internet bank account in the succeeding period?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

16)Are you aware and avail all the online banking services?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

17)What is the frequency of usage of internet banking?

- a) Daily
- b) Weekly
- c) Monthly
- d) Occasionally
- e) Never

18)Does your bank educate about the online banking services?

- a) Strongly agree
- b) Agree

- c) Neutral
- d) Disagree
- e) Strongly disagree

19)Are you aware of the security threats and frauds in online banking?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

20)Are you familiar with the methods of secured online transaction?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

21)Do you think online banking is a better substitute to traditional banking banking system based on your perception?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

22)In the basis of your perception kindly rate the following attitudes towards online banking.

| particulars                                    | Strongly agree | agree | neutral | disagree | Strongly disagree |
|------------------------------------------------|----------------|-------|---------|----------|-------------------|
| I find it easy to do what to do in online bank |                |       |         |          |                   |

|                                                                         |  |  |  |  |  |
|-------------------------------------------------------------------------|--|--|--|--|--|
| Learning to use online banking is easy for me                           |  |  |  |  |  |
| I find online banking to be flexible to interact with                   |  |  |  |  |  |
| I have received enough information about the benefits of online banking |  |  |  |  |  |
| Internet banking is accessible from anywhere                            |  |  |  |  |  |
| Internet bank provides up-to-date information                           |  |  |  |  |  |
| Using an online bank enables me to utilize services more quickly        |  |  |  |  |  |

## APPENDIX - 2 (ARTICLE)

### A STUDY ON EFFECTIVENESS OF ONLINE BANKING DURING PANDEMIC

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#### ABSTRACT

The Banking and Non-banking finance companies (NBFCs) which are the backbone of India's economy are not exception to the above though the lockdown was necessary and inevitable so as to prevent the rapid spread of Novel Corona virus and to save lives of people of the country; it is going to affect the various sectors of our economy in a larger sense.. People can protect themselves by this pandemic by the way of maintaining social distance. But the basic needs like food and medicine are vital for leading their life and in it the transfer of cash plays an inevitable role. Internet banking can make the transaction through an electronic basis without the exchange of any physical commodity with maintaining social distance. This study is an attempt to assess the contribution and impact created by online banking due to lockdown which has resulted in closure of all commercial, educational, public and private institutions and suspension of all means of transportation, etc. Our paper seeks to analyze the effectiveness of online banking sector in India during and post pandemic - Covid-19. This was done with the help of convenience sampling methods and their responses were summarized using graphs for the purpose of better understanding.

**Key words:** online banking, satisfaction, covid-19

#### INTRODUCTION

Advanced technology allows the banking institutions to enhance its operations with cutting of cost effectively and efficiently for the purpose of handle day to day banking affairs through online banking channel. Customers are been facilitated by the reduction of their visits to banks and do their transactions through internet or ATM machines rather than personally visiting the bank branches. The purpose of this study is to make an attempt to investigate the effective factors that facilitate using electronic banking services for their customers.

Banking industry is one among the major users of information as well as communication technologies in the business life. Since new millennium, millions have been spent for the purpose of developing online banking infrastructures. Therefore it has transformed the traditional banking practices and looking on online services as the next gen technology in many countries. Today by the usage of online banking, customers could conduct a wide range of banking services electronically, anytime and anywhere. Now through online banking, customers could conduct a variety range of banking services electronically, anytime as well as anywhere.

## REVIEW OF LITERATURE

**Carlos tam and Tiago Oliveira (2017)** states that the financial industry has has equally grown like many other industries and it has been innovated within their shells of operations. The technological advancement in a drastic level has cleared the path for new channels for banking. It becomes essential for the banking industry to be knowledgeable about what customer centric means and the methods to convert efforts into profitable notion.

**Eyob ketema (2020)** states that customers are the survival option for the business survival and at the same time satisfaction also plays a major role for the survival of service industry. it becomes more crucial to have surveillances and monitoring of the services rendered in the traditional methods and online mode. The predictor variables like reliability, security, efficiency, responsiveness, empathy and ease of use thus have a positive relationship with service quality

**Inzamam Ul Haq and Tahir Mumtaz Awan(2020)** states that the electronic banking requirements are enhanced in the current circumstances that had a greater influence during the pandemic situation though their traditional banking .however the requirement related to trust factor, safety and security, reliability, design of the website and the customer relationship and support is notable factors.

**Himanshu Arya (2019)** stated that electronic banking faces a challenge of safety and security most of the time and there prevails loss of data that may be caused due to technical defaults, the electronic baking also faces a kind of business challenges that is for a transaction done via internet the service charges are very low they can see profit unless there are large number of transactions are being routed over the website of the bank..

**Nayana and Ms.Susheela (2020)** states that inadequate knowledge, lack of infrastructure, undesirable location, security issues in ATM cards, the obstacles to open a bank account are the main challenges faced by most of the internet banking users generally. Digital banking is stated as a restless factor that the lifestyle easier. In dealing with the computer and other electronic devices there is always a view of system crashing, server traffic, virus threat and power and internet fluctuations which makes the accessibility of internet banking a little risk.

**Yuvnika Sogani (2020)**mentioned that many developed countries have switched to chip based cards and this change have globally caused a shift because of increased risk of cards skimming and cloning by the utilization of magnetic strip cards. Although it did not attain hundred percent impacts in the number of cards frauds worldwide but it did have a most important impact in the process of reducing them.

## OBJECTIVES

- To study the awareness about the online banking services provided by the banking sector during pandemic
- To identify the satisfaction level towards online banking during pandemic situations.

- To evaluate the factors for preferring online banking service.
- To analyze on the perception of customers towards e-banking during pandemic.

## **SCOPE OF THE STUDY**

In the present scenario majority of the economical and technical changes are taking place in industrial and financial revolution by the process of new information-processing technology. Especially in finance sector changes has a significant role for the overall development. After identifying the research area and referring the relevant literatures, it has been found that in most of the literature, the information technologies have a wide application area. However in the finance sector majority changes have been taken place. Due to these major changes we have chosen to do the study on effectiveness of online banking during pandemic. After completing step by step procedure, now it is required to take the review of the system.

The people used information and technological tools to manage and to process the information. The automation process is used in the financial sector for transaction system. Automation type of working methodology is used in the financial Institute since many years. The bank sector is mostly related to all classes of people like businessmen, industry, agriculture, labor, small entrepreneurs, workers etc. It has been changing the complete culture and the working methodology. Hence it has a wider scope to study the prevailing modern transaction system in the financial sector especially in online banking system. In the literature survey it has been found that the technology has monopoly for the development of software product and it is observed that such technology is not used for study purpose in any other different field.

## **RESEARCH DESIGN**

A research design is considers as a framework or a plan for a study that guides as well as helps the data collection and analysis of data.

**Descriptive Research Design-** Descriptive research is a type of study designed in order to depict the participants in an accurate way. In simple words the descriptive research is all about describing the respondents who take part in the study.

### **SOURCES OF DATA:**

*Primary data-* Primary data means the data collected by the investigator conducting the research in the contrast.

*Questionnaire-* The questionnaire tried to capture the responses of the customers mainly on the key deliverables, derived from the survey conducted and a few questions have been included to gauge the level of satisfaction and to gain insights into customer's expectations.

*Secondary Data Sources-* Secondary data refers to the data that was collected by someone other than the user. Common sources of secondary data are Journals, books, websites, industrial records and data that was originally collected for other research purposes.

*Structure of questionnaire and population-* There are two broad types of questions. they are open ended or open questions and closed ended or closed questions. An open question enables the respondents to answer as they wish and closed questions provide the respondents with a list of options from which they choose an option. The number of respondents collected was 112 respondents randomly in Chennai location.

**SAMPLING TECHNIQUE:**

*Convenience sampling method-* A convenience sampling is one of the main types of non-probability sampling methods. A convenience sample is made up of people who are easy to reach.

*Period of study-* The period of study is from January 2021 to March 2021 which is a three months of study.

*Analytical tools-* The analytical tools used are percentage analysis, correlation and one way Anova.

**RESULT ANALYSIS AND DISCUSSION****CORRELATION****1) Education and Satisfaction level attained**

|                             |                       | Education qualification | Satisfaction level attained |
|-----------------------------|-----------------------|-------------------------|-----------------------------|
| Education qualification     | Pearson's correlation | 1                       | 0.178                       |
|                             | Sig (2-tailed)        | -                       | 0.060                       |
|                             | N                     | 112                     | 112                         |
| Satisfaction level attained | Pearson's correlation | 0.178                   | 1                           |
|                             | Sig (2-tailed)        | 0.060                   | -                           |
|                             | N                     | 112                     | 112                         |

**INFERENCE-**

From the above table it is inferred that, since value of  $r$  is positive, and the significance level is more than 0.05, there exist a positive relationship between education qualification and satisfaction level attained.

**2) Age of the respondents and factors for preferring online banking**

|                                       |                       | Age of the respondents | Factors for preferring online banking |
|---------------------------------------|-----------------------|------------------------|---------------------------------------|
| Age of the respondents                | Pearson's correlation | 1                      | 0.163                                 |
|                                       | Sig (2-tailed)        | -                      | 0.086                                 |
|                                       | N                     | 112                    | 112                                   |
| Factors for preferring online banking | Pearson's correlation | 0.163                  | 1                                     |
|                                       | Sig (2-tailed)        | 0.086                  | -                                     |
|                                       | N                     | 112                    | 112                                   |

**INFERENCE-**

From the above table it is inferred that, since the value  $r$  is positive, and the significance level is more than 0.05, there is a positive relationship between the age of the respondents and the factors for preferring online banking.

## ONE WAY ANOVA

### 1) gender and online banking as a better substitute based on satisfaction

H0- there is no significant difference between gender and online banking as better substitute based on satisfaction level.

H1- there is significant difference between gender and online banking as better substitute based on satisfaction level.

|                | Sum of squares | df  | Mean square | F     | Sig.  |
|----------------|----------------|-----|-------------|-------|-------|
| Between groups | 1.582          | 3   | 0.527       | 2.163 | 0.097 |
| Within groups  | 26.337         | 108 | 0.244       |       |       |
| total          | 27.920         | 111 |             |       |       |

### INTERPRETATION-

From the above table since the significance level is more than 0.05 accept alternate hypothesis and reject Null hypothesis. Hence there is significant difference that is the relationship is negative between gender and online banking as a better substitute based on customer satisfaction.

## LIMITATIONS

The analysis of the present study has been carried out based on the information collected from the customers of banks. This study is an opinion survey and caution may have to be exercised while extending the result to other areas. Due to time constricts only 112 numbers of respondents were considered. The result is fully dependent on the information given by that of the respondents which may be based.

## SUGGESTIONS

People keeping in mind the current scenario should themselves shift to online banking and e-wallet payment services to carry out their financial transactions. Government should conduct awareness drives to educate people about the need to switch to online banking and its benefits. RBI should promote these online services and reduce the charges levied on e-wallet and UPI payments. Biometric ATM machines can also use to prevent hacking of password and to make easy for illiterate people. Adult customer always prefers advanced technology but sometimes lack of knowledge they are unable to access such technologies. The fact that people have positive perceptions about online banking should be treated with great value. This is that one bad experience can result in customer discontinuation of the E-banking service

## CONCLUSION

The banking sector has been a pioneer and a leader in the electronic business world in recent years. The electronic banking revolution has primarily changed the method of the business of banking by scaling borders and limits and by bringing all about new opportunities and pathways. In countries like India, electronic banking has strongly affected the strategic business considerations and complications for banks by importantly cutting down costs such as transaction cost and delivery cost of services offered. It must be taken into consideration that however, that while electronic banking provides many benefits to customers and that to

the banks, it also aggravates and reduces the hindrances of traditional banking risks. Compared to that of the developed countries, developing countries are facing many impediments that affect the successful and further implementation of online banking initiatives. One of the benefits that the banks experience while using electronic banking is that is increased customer satisfaction. This is due to that the customers may access their own accounts whenever and from anywhere and they can get involved more and thereby creating relationships with banks. Banks should also provide their customers with convenience in the sense meaning offering service that are through several distribution channels like ATM, Internet and physical branches and that have more functions available through online. Other benefits are expanded and variety product offerings and extended geographic reach. With all these steps, the banks can obtain success on that of the financial markets. But e-banking still remains to be a difficult business and banks face a lot of challenges.

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