

**PERFORMANCE ANALYSIS OF NEW GENERATION  
INDIAN BANKS FOR THE FIRST TWO DECADES OF  
MILLENNIAL ERA**

*Thesis Submitted to the  
ARKA JAIN University  
For the award of the degree*

*Of*

**DOCTOR OF PHILOSOPHY**

**In COMMERCE & MANAGEMENT**

*by*

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*Under the Guidance of*

**PROFESSOR (Dr.) ANGAD TIWARY**



**DEPARTMENT OF COMMERCE & MANAGEMENT**

**ARKA JAIN UNIVERSITY, JHARKHAND**

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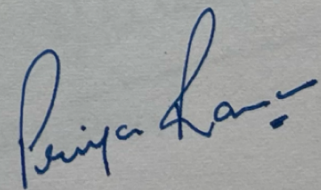
## DECLARATION

I, PRIYA RAMAN, Registration No AJU/181270 hereby declare that the Doctoral Research Thesis entitled "**PERFORMANCE ANALYSIS OF NEW GENERATION INDIAN BANKS FOR THE FIRST TWO DECADES OF MILLENNIAL ERA**" is a record of original research work undertaken by me for the award of the degree of Doctor of Philosophy in Commerce & Management completed under the supervision of Dr. ANGAD TIWARY, PROFESSOR, DIRECTOR -CAMPUS, DEAN STUDENT WELFARE, ARKA JAIN University, Jamshedpur, Jharkhand.

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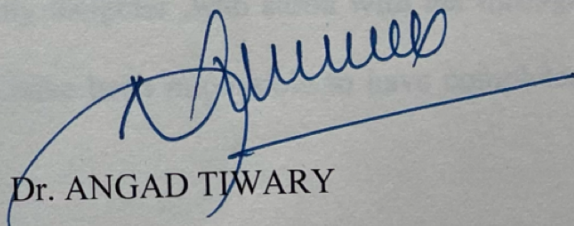
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This is to certify that the work contained in the thesis entitled “**PERFORMANCE ANALYSIS OF NEW GENERATION INDIAN BANKS FOR THE FIRST TWO DECADES OF MILLENNIAL ERA**”, submitted by **PRIYA RAMAN (Regd. No.: AJU/181270)** is a record of bonafide research work carried out by him/her under my/our supervision in partial fulfillment for the award of the degree of **Doctor of Philosophy in COMMERCE & MANAGEMENT** by **ARKA JAIN University**

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**PRIYA RAMAN**

# LIST OF ABBREVIATIONS

ATM	- Automatic Teller Machine
BOB	- Bank of Baroda
BOI	- Bank of India
BPR	- Business Process Re-engineering BSC Balanced Score Card
CAGR	- Compound Annual Growth Rate CBI Central Bank of India
CD Ratio	-Credit Deposit Ratio DEA Data Envelopment Analysis
DMU	- Decision Making Unit
GR	- Growth Rate
HRM	- Human Resource Management
HSBC	- Hongkong and Shanghai Banking Corporation
ICT	- Information and Communication Tech.
IS	- Information System
IT	- Information Technology
PC	- Personal Computer
PSU	- Public Sector Undertaking
RBI	- Reserve Bank of India
ROA	-Return on Assets
ROE	- Return on Equity
SBBJ	- State Bank of Bikaner and Jaipur
SBH	- State Bank of Hyderabad
SBI	- State Bank of India
LR	-Liquidity Ratio
TFP	-Total Factor Productivity
TGR	-Trend Growth Rate
HDFC	- Housing Development Finance Corporation Limited
ICICI	- Industrial Credit and Investment Corporation of India
KMB	- Kotak Mahindra Bank



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# CHAPTER I

## INTRODUCTION-

Finance is the lifeblood of a business similarly Financial Institutions are considered as the heart of an economy and its people. These Institutions help the economy to evolve, innovate and revive various sectors. Their primary existence ensures that individual and economic needs expectations and dreams are translated. With the help of these Institutions its easier for the individuals and corporate bodies to give their dreams a platform to transform them into reality. To facilitate this process these institutions have ensured rigid control yet be approachable for the general public.

A Bank is demarcated as a financial intermediary that takes in deposits from the general public and maneuvers these deposits into constructive lending activities, either directly to the general public or through the capital market<sup>1</sup>. A Bank acts as a bridge to supplement capital deficit with surplus where required. Financial Institutions encourage the convention of savings and also as a link between the lenders and depositors. Banks are a regulatory body which allows the customers free acceptance of deposit and withdrawal of funds when required. These Institutions accepts deposits from Individuals and corporate bodies who are in need of them.

Financial sector is the most influential sector that effects the performance of the other sectors in the economy. A repellent Financial sector becomes to be disastrous for the economy and it dislocates the activities of other sectors as well. Consequently an economy requires an effectual and proficient financial intermediary that will ensure consistent and constructive allotment of resources in all sectors of the economy. Hence it can be concluded that the effectivity and productivity of an economy are positively correlated

with the outcome of the financial sector. It becomes mandatory for the Financial Institutions to be regulated in an efficient manner to ensure the universal progression of the economy. To counter the imbalances of the financial sector and its volatile nature it has become utmost important that these financial institutions are highly monitored by the relevant regulatory bodies across the globe. Numerous guidelines and instructions are laid down to ensure the interest of the stakeholders, ensure financial steadiness and advancement of the economy is safeguarded.

Being an integral part of the functioning of an economy Banking sector plays a crucial role in the progression of the country. The progression of the economy and its people are directly correlated with the development of the banking sector. This specific sector acts as a fuel to the agricultural, industrial, trade and service industries. The system inspires the need to inculcate the habit of saving and to ensure sufficient funds are available for the people in need.

## **ROLE & CONTRIBUTIONS OF INDIAN BANKING SYSTEM:**

The structure of Indian Banking system comprises of 12 Public sector, 22 private sector, 44 foreign and 56 regional banks in our country<sup>5</sup>. Banks are primarily classified into scheduled and non-scheduled banks. The scheduled banks are then further branched into state co-operative and commercial banks, whereas the non-scheduled banks are divided into primary credit banks, central co-operatives, and commercial banks.

## **INCREASING FINANCIAL GROWTH**

The Indian banking system is at a crossroads. Real estate buyers were protected by improving the visibility of real estate transactions. Introduction of a unique identification number system that made it easier for government transfers. This has greatly benefited the poor. Development of Bankruptcy & Insolvency code also played a very important role. These are acceptable developments. However, the financial sector faces many challenges. Despite the signs that commercial banks are making progress in eliminating non-performing loans, there is still much work to be done. State banks confiscate about 70 percent of assets in the national banking sector. This difficult involvement of state-owned enterprises disrupts markets, making it

difficult for India to address the financial gap in key development sectors such as infrastructure, small and medium enterprises and housing. Non-bank financial companies, sometimes called shadow banks, have emerged as an important new source of debt for businesses and consumers. However their growth has also led to interactions with the mainstream banking sector which poses new risks. The financial sector is tackling these issues at a time when it is a challenge for the global economy. Global growth is slower between slower investments and weaker trade. Like many countries, the Indian economy is facing challenges, with weakening consumption and declining investment. Globally, bond yields have plummeted in a low or negative position for a few high-yield bond producers, benefiting a relatively small group but leaving the productive investment required for broad-based broad-based growth, including in India. This creates a difficult background for change. At the same time, it emphasizes the need for decisive action to allow for rapid growth. The chance is too great. Faced with the current challenges, India has the potential to build the world's largest domestic banking industry. The rapid growth of private sector debt will directly add to GDP, jobs and average income. The 2017 Economic Survey was presented to parliament today by the Minister of Finance and Trade and Industry Affairs, Nirmala Sitharaman. The survey highlights that India has a \$ 5 billion economy, the big banks in the public sector must function properly. The economy wants PSU banks to do their best and support economic growth instead of backtracking on borrowing which has a negative impact on growth and prosperity. India should have at least 6 of the top 100 banks in the world than the current largest PSU Bank which is the State Bank of India which is the 55th largest bank in the world. The survey reveals whether Indian banks were equally large in size in relation to the size of the Indian economy. Studies have shown that more than Rs. 4,30,000 crore of taxpayers' money is invested as government equity in state-owned enterprises. In 2017, every rupees of taxpayers invested in PSU banks on average lost 23 payments requiring urgent attention.

The key to a successful banking system are;

- Implementing favorable demographics
- Modernization of digital infrastructure including JAM & PMJDY
- Uniform Indirect GST

The survey believes that India's growth path depends on how quickly these growth

bases are implemented using a well-developed financial system. In developing countries, state-owned enterprises typically include fewer than a large portion of the market share: close to 20 percent compared to 70 percent. The financial sector here produces a lower level of debt compared to other countries. India's credit-to-GDP ratio is 51 percent. That's compared to 136 percent in Malaysia and 70 percent in Brazil. This trend is compounded by the fact that India's total savings rate, which accounts for about 30 percent of GDP, is in line with other countries. Saving is enough, but the system is not using it properly. To achieve the goal of building a \$ 5 billion economy, debt must grow at a faster rate while maintaining good credit quality and avoiding taking risks.

### **INCLUDING THE PRIVATE & FOREIGN SECTOR**

The extra debt will help meet India's needs in areas such as housing, SMEs and infrastructure. India's annual infrastructure finance gap is expected to be between 0.7 percent of GDP by 2035, more than double the global average of 0.3 percent. Successful debt growth can benefit the poor. Hundreds of millions of Indians, as well as millions of businesses and entrepreneurs, work in the informal economy, with limited access to financial services. Many of them can successfully use credit to build a business or buy motorcycles to get to work. Knowledge of other emerging markets and developing countries provides valuable lessons. In the 1980s and 1990s, a wave of developing countries moved to free up their financial sectors. Central and eastern European countries traded large portions of their financial systems in the early 1990's as they traveled to restructure their previously planned economies. In Latin America, countries including Mexico released their banking systems following a debt crisis in the 1980's. Most, but not all, financial freedoms have been successful. One lesson we can learn: it is important to have strong, independent authorities to control change. International experience also suggests that it is important to make changes in times of power, when the conditions of a major economy are equal and the nation is at a strong economic and financial level. In this context, we see India's recent efforts to strengthen its financial system. The Reserve Bank of India has worked hard to monitor the quality of its assets. The government's corporate banking system is an opportunity to strengthen governance, oversight, efficiency and risk management. We hope that these measures will form the basis of a comprehensive strategy to reduce the role of the public sector in the financial system. The combination of injecting private

investors into private banks and full private practice will enhance the sector's ability to support credit, facilitate effective financial interventions, and will reduce ethical risks and financial exposure. Gradually reversing the legal requirement of state-owned banks to provide for operating expenses, as well as important industry lending policy, may also be helpful. These policies end up doing more to distort markets than to expand. India is in a good position to take advantage of the latest developments in financial technology. India has already established a good foundation for promoting Fintech, which includes the “control sandbox” set up by the RBI, with the help of the World Bank Group. Fintech's top three deals in Asia last year were based in India, and 80 percent of Indians have bank accounts. India is in a good position to share the lessons learned with other countries. India can also continue to enter into its trading spirit and allow the private sector to continue to innovate in the region, for example in the rental housing market.

### **DEVELOPING CAPITAL MARKETS**

India's major markets can play a key role in helping the country achieve its economic goals. Equity market capitalization is over \$ 2.2 trillion, up six percent in 2017-9. However, the credit market remains at an early stage of development. The credit market remains largely dependent on government securities, while the business bond market is dominated by high-profile financiers and the public sector. The issuance of business bonds amounts to about 3.94 percent of GDP, much lower than other emerging markets. Corporate bond revenues increased from about \$ 52 billion in fiscal 2012-3 to \$ 101 billion in fiscal 2016-7. Since then, business bond issuance has remained relatively low. Deepening the Indian financial markets can go hand in hand with bank financing to encourage growth, help create new market areas and attract interest to local and foreign institutional investors. Deep financial markets can be an important way to increase long-term financial flows, especially considering the inconsistencies in the financial liability sector in the banking sector. Globally, long-term financing is increasingly focused on institutional investors such as pension funds, insurance companies, joint funds and private equity funds. We urge India to review its guidelines for local institutional investors, so that additional resources can flow into long-term investments. Another useful step would be to adjust the funding models for your financial development institutions to increase market-based support. As financial markets deepen, new infrastructure financial tools can attract more institutional investors. Globally, pension funds and other institutional investors have an estimated

net worth of \$ 136 trillion. Many of these funds would be able to invest more in India if they had a deep money market and the right combination of market tools.

### **EMPOWERING THE NON BANKING FINANCING COMPANIES:**

The growth of non-bank financing companies (NBFCs) has played a key role in transferring debt to markets that are less supportive of new products. IFC, an independent arm of the World Bank Group, has been supporting the NBFC sector and assisting underperforming market credit channels. NBFCs have been a useful complement to commercial banks, helping to meet national financial needs for infrastructure, and between entrepreneurs and consumers. The sector has recently experienced inflation, which has led to financial problems among some NBFCs. Most of these non-bank banks are dealing with conflicts of interest, short-term borrowing and long-term borrowing. Mainly dependent on commercial banks and financing market financing. Therefore, some banks have vulnerabilities within NBFCs. Resolving this “fallen balance sheet” issue of weakness in NBFCs and related banks will be an important step in strengthening India’s financial system and reviving economic growth. The recent slowdown in the NBFC sector is an opportunity for government and regulators to reconsider the role of these institutions in India’s financial system. We can welcome the RBI's efforts to strengthen its regulatory and oversight framework for the acquisition of all licensed financial institutions, including all systematic NBFCs. Properly managed, NBFCs will play a key role in promoting innovation in Fintech. That is why it is even more important for policy makers to ensure that NBFCs are properly regulated and implemented as their role in the financial system continues to emerge. The RBI has done a commendable job of overseeing the growth of NBFCs. Going forward, we would recommend that the authorities view the sector as a constructive, diversified combination of different types of institutions with different business models and risk profiles. One should consider using the same risk-based approach to directing NBFCs as you use banks, enforce stricter rules and further institutional scrutiny, depending on the risks they present to the financial system.

### **WORKING TOWARDS BUILDING A STRONGER INDIA:**

It is to emphasize the importance of a strong financial system in order to achieve India's goal of becoming a \$ 5 billion economy. Allowing more private sector

participation in the financial system, making it easier for funds to enter larger markets, and effectively managing key NBFCs are all ways to develop the financial sector in a way that could put India at a faster, more comprehensive growth. . An improved financial plan is essential to delivery. In recent decades, India has made remarkable progress in building a financial sector that meets its unique needs. However in a world where payments can be sent at the click of a button from a basic cell phone, it is important for countries to have financial institutions that ensure stability while providing deep, well-managed markets and fast enough to respond to the industry's rapid innovation. At the World Bank Group, we are proud of our long-standing cooperation with India. Our first project in India, which funded agricultural machinery, took place in 1948, a year after the nation gained independence. Over the years, our support has shifted from focusing on infrastructure and agriculture to economic liberation and poverty reduction. In recent years, we have supported the emergence of real estate finance and microfinance markets. Our financial experts are available to liaise with government as it moves forward with changes in banking and financial systems. As said earlier, it is important to design a system that meets the unique profile of the Indian economy. Conclusion The Indian banking system consists of 20 public sector banks, 22 private banks, 44 foreign banks, 44 local regional banks, 1,542 urban cooperative banks and 94,384 co-operative banks in addition to institutions. of corporate loans. As of January 31, 2017, the total number of ATMs in India has increased to 210,263 and is expected to increase to 407,000 by 2021<sup>6</sup>. The British at the time of the revolution, the subjugation of the state to form private banks and now an increase in the number of foreign banks in India. So, Banking in India has come a long way. The banking industry in India has also reached new heights and changing times. The Indian banking system consists of 18 public sector banks, 22 private banks, 46 foreign banks, 53 rural banks, 1,542 urban cooperative banks and 94,384 co-operative banks as of September. 2017. During FY07-19, deposits grew to CAGR 11.11% and reached \$ 1.86 trillion by FY19. Deposit from Feb 2017, stood at Rs 132.35 lakh crore (US \$ 1,893.77 billion). The use of technology has brought about a change in the way banks operate. However, the basic features of banking, namely the trust and trust of the people in the institution, remain the same. Most banks are still successful in maintaining the confidence of shareholders and other stakeholders. However, with the fluctuations of the banking business it brings a new kind of exposure to risk. In this paper attempts to identify common feelings,



challenges and opportunities in the Indian banking industry. This article is divided into three sections. The first part covers the introduction and general situation of the Indian banking industry. The second section discusses the challenges and opportunities facing the Indian banking industry. The third phase concludes that there is an urgent need for greater emphasis on Indian banking product and marketing strategies in order to achieve sustainable competition over intense competition from national and international banks.

## **Challenges and Challenges Facing the Indian Banking Industry**

Among the signs of progress, the Indian banking industry has faced many challenges in recent times. Few of them –

### **A. Bad Loans**

At about Rs10 lakh crore, India's gross debt is larger than the total production of domestic products in at least 137 countries. But so far, RBI's efforts to reduce Non-Performing Assets (NPAs) in the banking sector have had little effect. The total share of NPAs in India could grow to 10.2% in March 2018, up from 9.6% in March 2017, according to the FSR. In September 2016, the total number of NPAs was 9.2%. Currently, they have hit the central banks, which are in control of the Indian banking system. As of March 2017, the PSB's bad credit rating stands at 75% of its total value. These bad loans are squeezing banks' profits and financial positions, threatening the lives of some of India's largest banks. In the report, the RBI warned that the situation could worsen with any unexpected economic downturn.

### **B. Cyber threats**

About 95% of India's transactions are paid in cash but with the advent of computers and smartphones, with increasing internet access, Indians are taking digital channels for their banking needs. Cybercrime will be a major threat as a result. FSR has called cybercrime as the most dangerous area for the Indian banking sector. The RBI classifies bank fraud as a transaction involving any fraud, negligence, misappropriation of funds, or fraudulent documents.

### **C. Adequate Capital Sufficiency**

One way a bank tries to ensure that it is safe from bad credit is to set aside money as a 'provision'. This money cannot be used for any other purpose including borrowing. As a result, banks have a limited amount of money available for their various activities. Capital Adequacy Ratio measures the value of a bank. If this is the case, the bank may have to

borrow money or use lenders' money to lend. This money, however, is more risky and more expensive than the bank itself.

#### **D. Unusual Forex Disclosure**

"Wild gyrations in the forex market have the potential to put a lot of pressure on the books of Indian companies that have borrowed heavily abroad," Mundra said in a statement. This stress can be affected their ability to pay off debt to Indian banks. As a result, the RBI wants banks to ensure that lending companies do not expose themselves to unnecessary debt in dollars.

#### **E. Unused Assets**

NPAs have been a major problem in the banking sector over the past few years and have had a significant impact on bank lending. According to a study, total NPAs account for 12 percent of total loan disbursements in the banking system. However, if restructured assets are considered, the accounted assets account will be 10.9 percent of the total loan amount in the system. According to the International Monetary Fund (IMF), about 37 percent of India's total debt is at risk. India's largest bank, the State Bank of India (SBI), has reported a 67 percent reduction in the combined interest rate of Rupees. 1259.49 crore. the third quarter of the 2015-16 financial year and a loan of Rs 20692 crore has not changed.

#### **F. Reduced Profit**

The banking sector recorded a decline in balance sheet growth for the fourth consecutive year in 2015-16. Profits remained depressed as the return on goods (RoA) continued to be less than 1 percent. In addition, although PSBs make up 72 percent of the bank's total assets, it has a profit margin of only 42 percent of the total profit.

#### **G. The Transfer Case**

As a reduced benefit, this is also the bud of the growing NPAs in the system. By lowering inflation and adjusting to inflation expectations, the RBI lowered the repo by 100 points between January and September 2015. However, significant policy changes were not reflected in lending rates as banks were unwilling to transfer profits. of low interest policy state due to low availability of funds compared to the background of high NPAs.

#### **H. Corruption**

The previous scams of the Global Trust Bank (GBT) and Baroda Bank show how few officials misused the freedom they had given and hid in secret to their advantage. These scams have seriously damaged the reputation of these banks and as a result have been profitable

## **OBJECTIVE OF THE STUDY**

- To analyze the impact of Financial parameters on the performance of New Generation Banks
- To analyze the impact of Non Financial Parameters on the performance of New Generation Banks
- To understand the correlation between the Financial and Non Financial Factors effecting the performance of New Generation Banks
- To find out the most prominent Financial and Non Financial factors effecting the performance of New generation banks
- To study and understand the customer's perception about new generation banks.

## **HYPOTHESIS :**

The study aims to conduct a research probe into the following:

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**H<sub>03</sub>**- There is no significant correlation of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

## **SCOPE OF THE STUDY**

The study has considered 4 major New Generation Banks-HDFC Bank Ltd ,Axis Bank Ltd ,Kotak Mahindra Bank Ltd & Yes Bank Ltd. The study has remained engrossed in determining the essential factors that determine the Performance of a New Generation Bank that necessarily does not have to be a financial one.

## **BENEFIT OF THE STUDY**

The study aims to emphasize the following points :

- Understanding the Position New Generation Banks hold in the current banking industry
- Customer's preference towards New Generation Banks
- Factors that effect the performance of a bank
- Importance of Non Financial Parameters while determining the Performance of a new generation bank.

## **RESEARCH METHODOLOGY**

The study has been executed with the usage of primary and secondary data accumulated through field study , the annual report of the New Generation Banks and through various reports of RBI etc. A Multi Stage Random Sample Survey method was used for collecting primary information (of the customers of the sample new generation banks) to understand the impact of the New Generation Banks . Questionnaires for the customers of New Generation Banks, have been used to collect primary data.

Data processing and analysis have been done mainly using the following methods/techniques: descriptive statistics and analytical techniques like chi square test ,Friedman Test and ANOVA.

## CHAPTER II

### REVIEW OF LITERATURE

Educational research on the performance of National Banks and New Generation Bank sectors in India is very important and relevant to the context of the existence of the structure, before taking up such work attempts at this stage to present a review of available resources. courses in the appropriate area of the banks. Formal or formal research in banks and related areas comes from India. Research conducted in the Indian and domestic banking sector is closely related to the institutional activities, operations and development of banks.

#### **Research Conducted by various authors studying the Financial Parameters effecting the Overall Performance:**

Kaveri (2002) as per the report on trend and progress of banking in India 2000- 2001. The gross NPAs of scheduled commercial banks increased to Rs.63883 crore to march 2001 from Rs.60408 crore a year ago. Net NPAs on the same date amounted to Rs.32468 core compared with Rs.30073 crore as at end march 2000. Recovery measures could be classified into two categories: Legal measures debt recovery, national company law, corporate debt, company manager etc. Non-legal measures remind systems visits to borrowers, recovery camp, loan compromise and appointment of professional agencies for recovery. Finally the NPAs analysis in during 1999-2000, shows that recovery from NPAs in some PSBs was RS.3000 crore but the amount involved in fresh NPAs was more than Rs.6000 crore. Consequently each bank has set up credit monitoring department cell at the corporate office and zonal office suitable reporting formats have been devised for branches to provide information on NPA borrowers.

C. Kandasamy and C. Indirani, “A Study on Financial Performance of New Generation Private Sector Commercial Banks in India”, International Journal of Science and Research, Vol. 4, No. 2, pp. 1758-1763, 2015. In their study stated that the new

generation banks are in a position to increase their possessions and income. They also did raise a concern on the performance of Public sector banks which is hereby giving a rise for competition of New Generation Banks.

Vinisha, “Financial Performance of New Generation Banks in India: An Interbank Analysis”, *Business Sciences International Research Journal*, Vol. 4, No. 1, pp. 69-71, 2016 studies about the coming into existence of New Generation banks, the need and the role of the same in the current scenario. The study also compares the financial performance of the New generation banks with the established Public sector banks and the impact of the same in the banking industry.

Habiba Abbasi, “A Comparative Study of Public and Private Sector Banks in India”, *International Journal on Recent and Innovative Trends in Computing and Communication*, Vol. 5, No. 5, pp. 361-370, 2017-New private banking banks are the fastest growing sector in India. The efficiency and effectiveness of these banks have repeatedly improved. Exploring this field is not an easy task. Following the national banking system adopted in 1969, the number of private banking companies increased. And thanks to the presence of new private sector banks and foreign banks have made the market more efficient and improved the quality of services over the past decade in India. These banks have established themselves in the new and latest system with the highest level of service and excellent performance.

Priyanka Jha, “Analyzing Financial Performance (2011- 2018) of Public Sector Banks (PNB) and Private Sector Banks (ICICI) in India”, *ICTACT Journal on Management Studies*, Vol. 4, No. 3, 793-799, 201879. Bank customers have great faith in the public banks compared to private bank banks. People are very fond of PNB bank for its need for loans and development compared ICICI Bank. However, PNB bank has low efficiency compared to ICICI bank. If there is a dividend payment rate, Debt Equity and Interest Rate Used for Interest, ICICI. The bank did very well compared to PNB bank

M Selvakumar et al. (2019) : Performance Analysis Of New Generation Private Sector Banks In India studied the financial parameters of several new generation banks the study is based on a model developed by the author who further tests the same through Friedsman test. The study aims to find the best performing New Generation Bank.

Dr. C. Paramasivam (2020) A Study On Performance Of Private Sector Banks In India stated in his study that The banking sector is one of the most important parts of the economic development of a country that provides systematic cash flow from one hand to the other. She is well organized and the regulated banking system facilitates the effective and significant growth of the social economy conditions in the world. Banking is another driver economy definition country. It provides the funding needed for families and businesses to invest in the future. As a result the existing papers mainly discuss the operation of commercial banks in India about public, private companies and foreign banks

**Research Conducted by various authors studying the Non Financial Parameters effecting the Overall Performance:**

Karim khalilli (2012) says that the goal of present research is to survey the relationship between electronic services quality and users' electronic satisfaction of central branch of Indian Bank. This study is survey, analytical and applied research. For this purpose, electronic service quality has been defined in 6 dimensions: Efficiency Dimension, reliance capability, Command Supply, Personal Secret Protection, Compensation, and Communication. In this way 9 hypotheses have been set. The Statistical survey of this research is customers of central branch of Indian bank. The size of statistical sample has been estimated 380 people by Cochran formula, and has been selected by using time random sampling method. Information gathering instrument in this research is researcher made questionnaire. It has been distributed among statistical sample after assessing validity and reliability of questionnaire, Gathered data, summarized and categorized using descriptive statistical method. Pearson test and Freedman test have been used to test research hypothesis. The result of research indicates that there is relationship between electronic services quality and its seven dimensions and users' electronic satisfaction of central branch of Indian Bank. And also ranking of the relationship between dimensions of electronic service's quality and electronic satisfaction of bank users has



been presented.

Mahtab Alam (2012) attempts to find out the customer satisfaction of the internet banking users which leads to make more loyal customers and hence loyalty leads to attracting more customers, expansion of business and increase in net profit. The finding of the study shows that there is a significant variation in the level of satisfaction among the internet banking users. The satisfaction of the Internet banking users depends upon Reliability, Responsiveness, Security and Ease of use and Tangibles.

Senthil Balasubramanian (2013) says that channel of distribution like Automatic Teller machines (ATM), internet banking, and mobile banking. This enables the customer to avail the banking services at anytime and anywhere. These technological interfaces are known as self service technologies (SSTs). Customers availing banking services through these SSTs get more benefits in terms of time, cost and energy. Despite these benefits the customer trial, adoption and repeat usage of SSTs vary among banking customers. Although the kinds of service one can avail from these SST are similar, the patronage among the SSTs differs. The SST channel choice could be attributed to various factors viz., Nature of service to be availed or purpose, Perceived risk, Requirements and Benefits.

When it comes to predicting customer priority among alternatives, Analytical hierarchy process (AHP) has been proved as an effective technique. This paper explores the factors influencing customer choice of SSTs by employing AHP technique.

Nishit V.Davda, in her study "A Review Article on New Private Sector Banks in India: Challenges and Opportunities", Indian Journal of Research, Vol. 3, No. 12, pp. 93-94, 2014. stated that usually customers have a higher trust factor in private sector banks in comparison with public sector banks in context of performance and other parameters.

## **RESEARCH GAP:**

“Performance Analysis is the process of studying or evaluating the performance of a particular scenario in comparison of the objective which was to be achieved. Performance analysis can be done in finance on the basis of ROI, profits etc.”<sup>4</sup>

Performance Analysis is considered to be a parameter in judging the effectivity of an organization. But even while judging the performance usually researchers concentrate on the financial parameters only. While there have been few researches where the performances have been analyzed from the aspect of customer satisfaction level.

Performance Analysis of New Generation Banks have been conducted by various researchers -in the financial area with the help of CAMEL analysis and various other statistical tools and when non financial parameters are considered researchers have analyzed the performance of the banks through the service they provide and the satisfaction level .But when one wants to figure out the performance of a bank it cannot be identified through one single parameter. When one considers analyzing the performance of a banking institution one needs to strike a perfect balance between the financial and non financial parameters.

The current study aims to find a perfect correlation through which a ground may be set to analyze the performance of a banking institution on a wider perspective where both financial and non financial parameters play a dominant role

# CHAPTER III

## RESEARCH METHODOLOGY

This chapter provides a brief discussion of data collection process, from the field and other sources, for our analysis. It then describes different research methodologies to analyze the performance of New Generation Banks and the implication of the Financial & Non Financial Parameters . This chapter also discusses the research methodology for measuring the correlation between the Financial & Non Financial parameters and how they together impact the performance of the New Generation Banks..

With these objectives in particular, the discussion here has been structured in three broad sections.

In the first section (3.1) of this chapter, an attempt has been made to discuss the methods of data collection from the field and other sources.

In the second section (3.2) of this chapter, an attempt has been made to discuss the research methodology to measure the Financial & Non Financial performance of New Generation Banks

In the third section (3.3) of this chapter, an attempt has been made to discuss research methodology to measure Correlation of Financial & Non Financial Parameters impacting the overall performance of New Generation Banks.

### **3.1 DATA COLLECTION PROCESS:-**

#### **3.1.1 RESEARCH DESIGN:-**

The study is both exploratory as well as descriptive in nature. Exploratory research has provided valuable insight into the complex scenario of understanding the factors effecting the performance of the New Generation Banks and breaking the biases towards concluding that it is only the Financial parameter effecting the performance of New Generation Bank

### **3.1.2 FIELD STUDY:-**

Field survey was conducted for the customers of New Generation Banks. The field study collected information from the respondents by using a predefined questionnaire.

### **3.1.3 DATA COLLECTION:-**

#### **3.1.3.1 PRIMARY DATA:-**

A detailed field survey was done. The respondents were interviewed using structured and unstructured questionnaire.

#### **3.1.3.2 SECONDARY DATA:-**

Secondary data were obtained from the published reports, internet, libraries, journals/magazines, and reports of certain government agencies, banks' annual reports and various reports of RBI, NSSO, NABARD, NAFSCOB, CEIC etc. Major part of the objectives are covered through the analysis of secondary data.

#### **3.1.3.3 DATA COLLECTION PERIOD:-**

Stakeholders' data were collected during the period 2010-2021 using structured questionnaire. And the responses were taken from different members/ non-members of different New Generation Banks for the above mentioned period. The first decade has been not fully incorporated in the study as two of the sample banks (Kotak Mahindra Bank & Yes Bank) were formed in the year 2003, hence to ensure a stable performance comparison, the period of study considered is from 2010-2021.

#### **3.1.3.4 RESEARCH METHODOLOGY:-**

A random sample survey method was used for collecting primary information (from members and non-members of New Generation Banks) to understand the impact of New Generation Banks on different performance parameters. Please refer annexure , for the set of questionnaire used for data collection.

### 3.1.3.5 SAMPLING TECHNIQUE:-

Multi stage sampling technique was followed for the study. In the first stage the numbers of sample New Generation were determined from the total population of customers of these New Generation Banks.

### 3.1.3.6 Sample size determination:-

In order to determine the sample size for our research analysis we applied the following formula.  
For the sample size n:

$$\begin{aligned}n &= \frac{N \times X}{(N + X - 1)} \\ &= \frac{5229 \times 384}{(5229 + 384 - 1)} \\ &= 358\end{aligned}$$

Where we determined the x value as,

$$X = \frac{Z^2 \times p \times (1-p)}{MOE^2}$$
$$\begin{aligned}MOE^2 &= \frac{1.96^2 \times 0.50 \times (1-0.5)}{0.05^2} \\ &= 384\end{aligned}$$

Where  $Z_{\alpha/2}$  is the critical value of the Normal distribution at  $\alpha/2$  (e.g. for a confidence level of 95%,  $\alpha$  is 0.05 and the critical value is 1.96), MOE (0.05) is the margin of error, p (0.50) is the sample proportion, and N is the population size. Here finite population Correction has been applied to the sample size.

## 3.2 DATA COLLECTION

The data collection for the present study was entirely primary in nature. A total of 385 respondents were contacted from the field by applying random sampling process. A variety of statistical tools and techniques, including Chi-square test, CFA and Structured Equation Model was used for data analysis.

### 3.3 NON-RESPONSE CHECKS

As with any questionnaire based survey, non-response always exist. The most often cited reasons for non-response were respondents' reluctance to participate in the survey and enumerators' inability to gather replies in a reasonable amount of time. Therefore, both a field and data were used to check for non-response entries.

### 3.4 PILOT SURVEY AND SCALE REFINEMENT

Researchers have advised doing a pilot survey prior to conducting a full assessment (Sekaran, 2003; Malhotra, 2008). The major objective of the pilot survey is to fine-tune and verify the normality of the measuring scales (Sekaran, 2003; Malhotra, 2008). To do this, it was decided to begin by generating data from a small sample. Thus, determining the sample size for the pilot survey was critical. In this regard, prior studies have advised that the sample size for a pilot research is to be between 25 to 100 respondents (Cooper & Schindler, 1998; Hair et al, 2010). Furthermore, it has been recommended that the subject to variable ratio for EFA use be at least 10:1 (Hair et al, 2010).

Therefore, 50 respondents were contacted for survey so that through their response pattern, any type of anomaly in the questionnaire can be adjudged. As the Cronbach's Alpha was found to be more than 0.80, it is acceptable and considered good for social science research.

#### Scale: ALL VARIABLES

##### Case Processing Summary

		N	%
Cases	Valid	56	100.0
	Excluded <sup>a</sup>	0	.0
	Total	56	100.0

a. Listwise deletion based on all variables in the procedure.

##### Reliability Statistics

Cronbach's Alpha	N of Items
.939	25

### 3.5 RESEARCH MODEL:

Since there had been no predefined study in the lines of the said objective of this study, it was essential to develop a acceptable model to satisfy the hypothesis and objectives of the study.

### **3.5.1 OBJECTIVE OF THE STUDY:**

- To analyze the impact of Financial parameters on the performance of New Generation Banks
- To analyze the impact of Non Financial Parameters on the performance of New Generation Banks
- To understand the correlation between the Financial and Non Financial Factors effecting the performance of New Generation Banks
- To find out the most prominent Financial and Non Financial factors effecting the performance of New generation banks
- To study and understand the customer's perception about new generation banks.

To Validate the above mentioned objectives, the following hypothesis are formulated.

### **3.5.2 HYPOTHESIS FORMULATED:**

The study aims to conduct a research probe into the following:

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

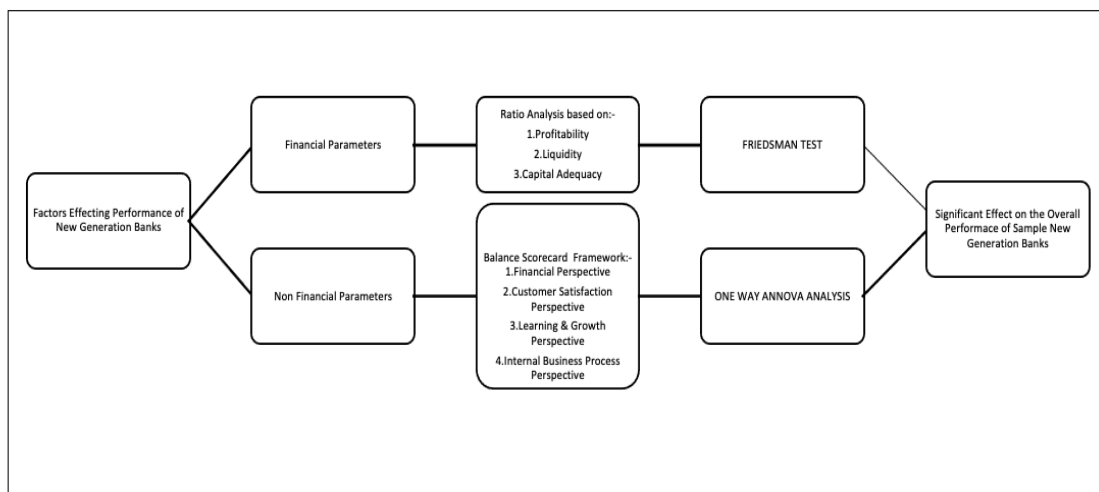
**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**H<sub>03</sub>**. There is no significant correlation of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

### 3.6 RESEARCH VARIABLES:

Although the extensive literature review revealed various factors, only a few were found to be pertinent to the topic and were included for the current study. Many such demographic and psychographic variables have been examined, but the results are inconsistent. Various studies were analyzed to determine the factors effecting the overall performance of New Generation Banks but only studies relating to Financial Performance and Customer satisfaction were undertaken hereby putting a compulsion on the researcher to determine her own model for analysis. The design created to evaluate the current study takes into consideration both the financial and non financial parameters to derive at the conclusive result. To check the relativity of the Financial parameters a set of 15 ratios were considered ,on the categories of Profitability, Capital Adequacy & Liquidity. These 15 ratio's were further analyzed using Friedman test to evaluate the relatability of the parameters and overall objective of the study

#### **Research Design to study the impact of Financial & Non Financial parameter's impact on the Overall Performance of New Generation Banks.**



Source: Author's Design





## **CHAPTER IV**

### **DATA ANALYSIS & INTERPRETATION**

In the previous chapter , the research pathway and methodology used for the present study had been discussed .The ultimate priority of the current chapter is to contour the analysis methods and to carve out the findings from the study. A brief demographic profile of the respondents is presented at the beginning of the chapter to cast a light on the background of the respondents involved in the study and the implication of the same. Together, Descriptive & Inferential statistics had been applied to the available dataset. Analysis tools like frequency ,percent ,mean & standard deviation were used from the descriptive statistics tools whereas Chi square test was used as inferential statistics tool to investigate the demographic data. Usage of pictorial depictions have been used where ever possible. Conclusions for the said chapters were drawn using Balance Score Card Technique ,Friedsman Non Parametric Test & SPSS -21 .

#### **4.1 Demographic Analysis of the Respondents**

Demographic information refers to data about features or characteristics that define a person or population. Obtaining demographic information is important and beneficial in helping researchers better understand the number of people interested in their research. The demographic profile of the respondents scrutinized in this study were gender, age, educational qualification, and income. The general demographic profile of the respondents is shown below:-

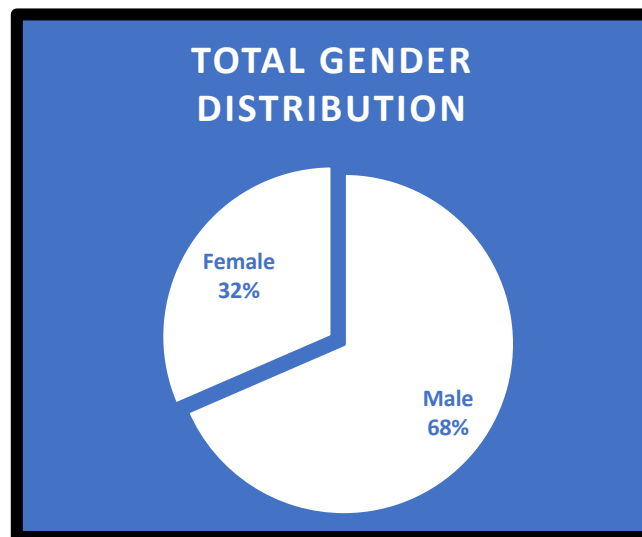
#### 4.1.1 Gender:

Enav Friedmann<sup>1</sup>, Oded Lowengart<sup>2</sup> in their study –“The Effect of Gender Differences on the Choice of Banking Services” stated that banks usually have preferential treatment towards a specific gender in their customer base. This study also suggested further that banks should be impartial towards providing services towards their customers irrespective of the gender.

<b>GENDER DISTRIBUTION TABLE</b>				
<b>Gender</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>Male</b>	75%	85%	54%	100
<b>Female</b>	25%	15%	46%	0
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 4.1.1

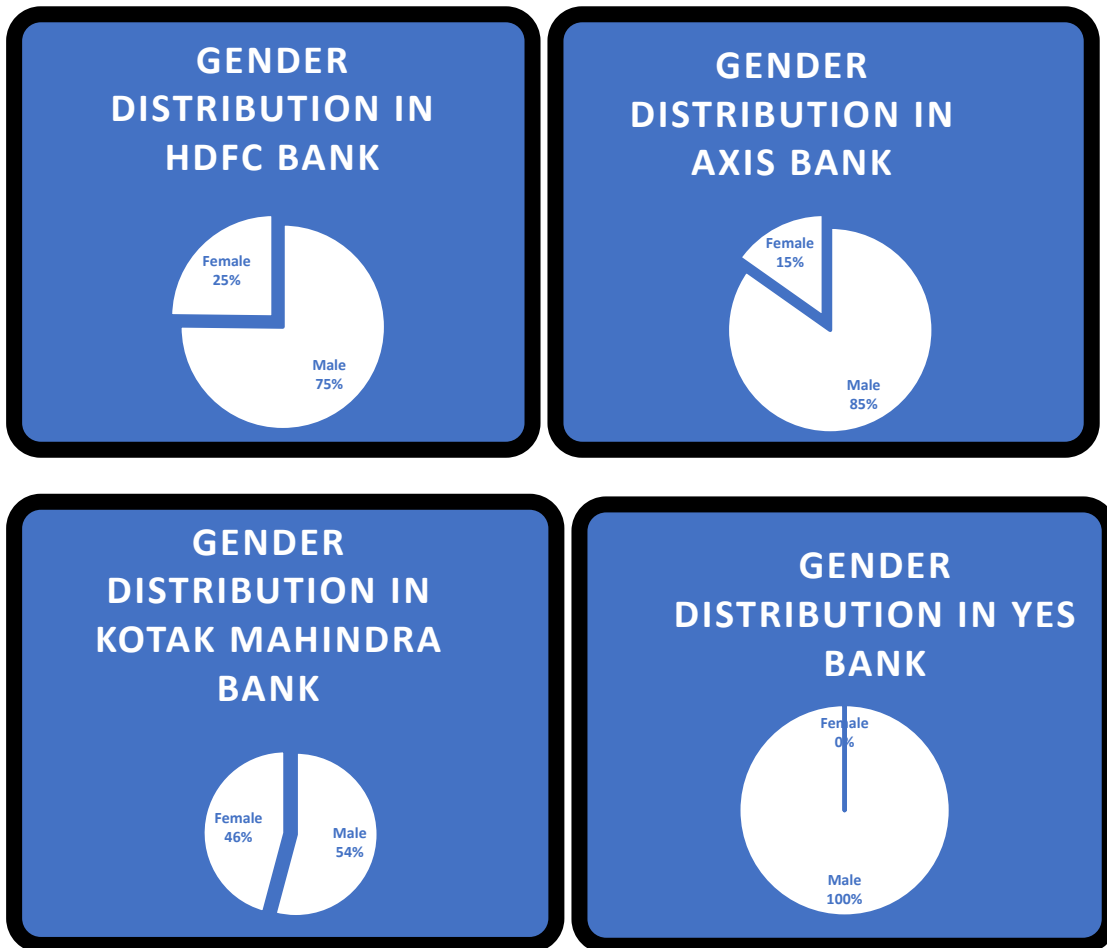
Fig 4.1.1



Source: Author's Calculation

In the above tabular & pictorial representation ,a glimpse of the respondents based on their gender. Out of total respondents the study has 68% male respondents & 32% female respondents. Some studies have claimed that some banks have an inclination towards serving a specific gender ,which will be further tested through a fitness of good test-Chi Sq Test to prove any positive correlation between gender and banks customer database.

**Fig:4.1.2**



**Source :Author's Calculation**

In the figure 4.1.2 we have a glimpse of the respondents in the four sample banks .In HDFC we have 75% male respondents & 25% female respondents. In Axis Bank we find that

there are 85% male respondents & 15% female respondents. Kotak Mahindra Bank has 54% male respondents & 46% female respondents .All the respondents of Yes Bank were male. Through this depiction it may be said that all the sample New Generation Bank are male dominated. To substantiate it further Chi Square -Fitness of Good test is conducted.

### **Reliability Test**

The reliability analysis allows to study the features of the measurement scales and the items that comprise the scales. The Integrity Analysis Process calculates the number of commonly used measurement reliability scales and provides information about the interactions between each item on the scale. Intraclass communication coefficients can be used to calculate intermediate levels of intermediate levels.

In order for the test to be acceptable, the results of the chi-square test must comply with the following parameters:

- The chi-square result must be higher than 5;
- Confidence level must be 95% at least;
- The variable should be represented in, at least, 5 units of the sample

**Table 4.1.2**

**Reliability Test:**

<b>BANK</b>	<b>MALE</b>	<b>FEMALE</b>	<b>X<sup>2</sup></b>	<b>P-value</b>
<b>HDFC BANK</b>	<b>75%</b>	<b>25%</b>	0.00000000374527	<b>1</b>
<b>AXIS BANK</b>	<b>85%</b>	<b>15%</b>	0.00000238008	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>54%</b>	<b>46%</b>	0.683091398	0.999884949
<b>YES BANK</b>	<b>100%</b>	<b>0%</b>	0.000000963357	<b>1</b>

**Source :Author's Calculation**

From the table 4.1.2 it can be concluded that gender does not play a pivotal role while choosing a New generation bank .

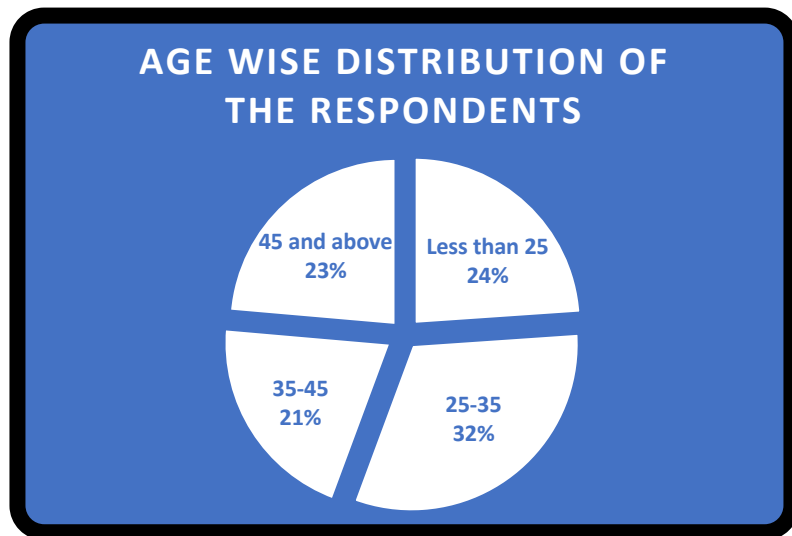
**4.1.2 AGE:**

ADVANCING THE DIGITAL FINANCIAL INCLUSION OF YOUTH-A report prepared for the G20 Global Partnership for financial inclusion by OECD cited that world 16% population belongs the age group 15-24 years. The study emphasized an urgent need to get the youth of any country financially upgraded and upskilled .Table 4.1.3 depicts the age wise distribution of the respondents of the current study.

**TABLE 4.1.3**

<b>AGE WISE DISTRIBUTION OF THE CUSTOMERS</b>				
<b>Age</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>Less than 25</b>	37 %	27 %	43 %	14 %
<b>25-35</b>	18 %	13 %	30 %	10 %
<b>35-45</b>	24 %	27 %	17 %	34 %
<b>45 and above</b>	22 %	33 %	9 %	41 %

**Fig:4.1.3**

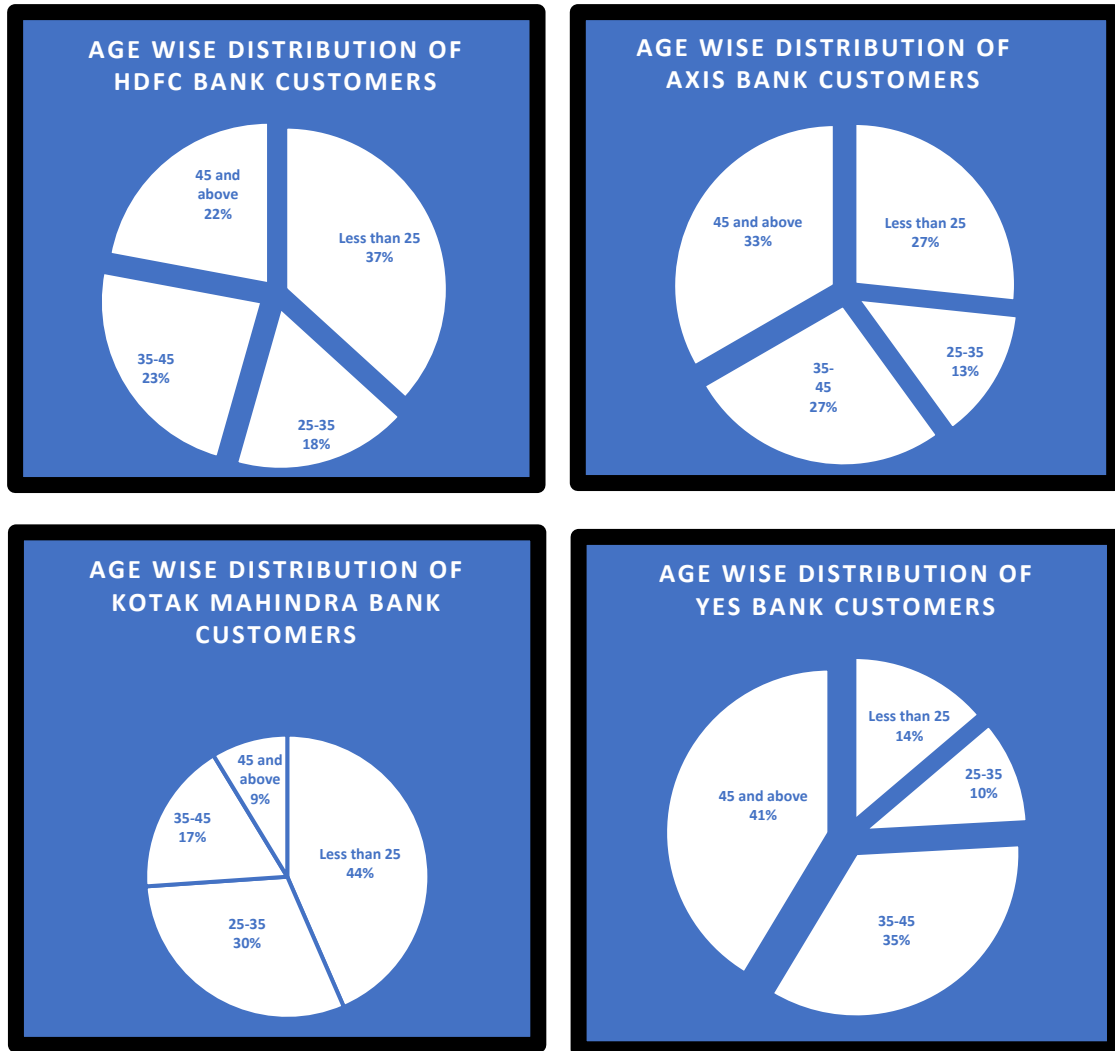


**Source: Author's Calculation**

In fig 4.1.3 it is depicted that 24% respondents are less than 25 years, 32% respondents are between 25-35 years, 21% respondents are between 35-45 and finally 23% are above 45 years of age. It is observed that 56% of the total respondents are below 35 years of age

hence it can be said that the sample New generation Banks are working towards empowering the youth towards digitalization.

**Fig:4.1.4**



**Source: Author's Calculation**

Fig 4.1.4 demonstrates the age wise spread of customers across the sample New Generation Banks. HDFC has a customer base of 37% who are less than 25 ,18% who are between 25-35,23% between 35-45 &22% who are 45 and above. Axis Bank has 27% respondents who



are below 25 ,13% who are between 25-35,27% of the responses were received from the age bracket of 35-45 years of age, whereas the last criteria of 45 years and above has only 22% responses. Yes bank demonstrates the following responses ,14 % belong to less than 25 years age,10% between 25-35,35% between 35-45 & 41% are those who belong to 45 years and above criteria.

Kotak Mahindra Bank has only 9% responses from the age bracket of 45 and above remaining 91% are further distributed as follows,44% belong to less than 25 years criteria,30% between 25-35 & 17% between 35-45.

Observation of the above facts leads to the point that major New Generation Banks have young customers. But weather they have a priority of having youth as their customer base and focus on delivering services to them can only be tested via a Fitness of Good Fit test.

In order for the test to be acceptable, the results of the chi-square test must comply with the following parameters:

- The chi-square result must be higher than 5;
- Confidence level must be 95% at least;
- The variable should be represented in, at least, 5 units of the sample

**Table 4.1.4**

**Reliability Test:**

<b>BANK</b>	<b>Less than 25</b>	<b>25-35</b>	<b>35-45</b>	<b>45 &amp;Above</b>	<b>X<sup>2</sup></b>	<b>P -Value</b>
<b>HDFC BANK</b>	<b>33%</b>	<b>27%</b>	<b>23%</b>	<b>22%</b>	0.01141201	<b>1</b>
<b>AXIS BANK</b>	<b>27%</b>	<b>13%</b>	<b>27%</b>	<b>33%</b>	0.28388613	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>44%</b>	<b>30%</b>	<b>17%</b>	<b>9%</b>	0.09404918	<b>1</b>
<b>YES BANK</b>	<b>10%</b>	<b>35%</b>	<b>41%</b>	<b>14%</b>	0.04392143	<b>1</b>

**Source: Author's Calculation**

Table 4.1.4 depicts that the P value of all the bank is 1 which is more than the significance level of .05 therefore there is no relation between banks and a specific preference of a particular age.

**4.1.3 OCCUPATION:**

The concept of work has long despised the satisfactory definition of a career therapist or occupational scientist. Recently, both Kielhofer and Nelson tried to define the term Work in a way that will reduce the ambiguity associated with the use of the word. This article compares and contrasts their work ideas, explaining how the word work and related concepts are defined and used. The identified differences and similarities provide the basis for recommendations for continuous improvement and confirmation of job description.

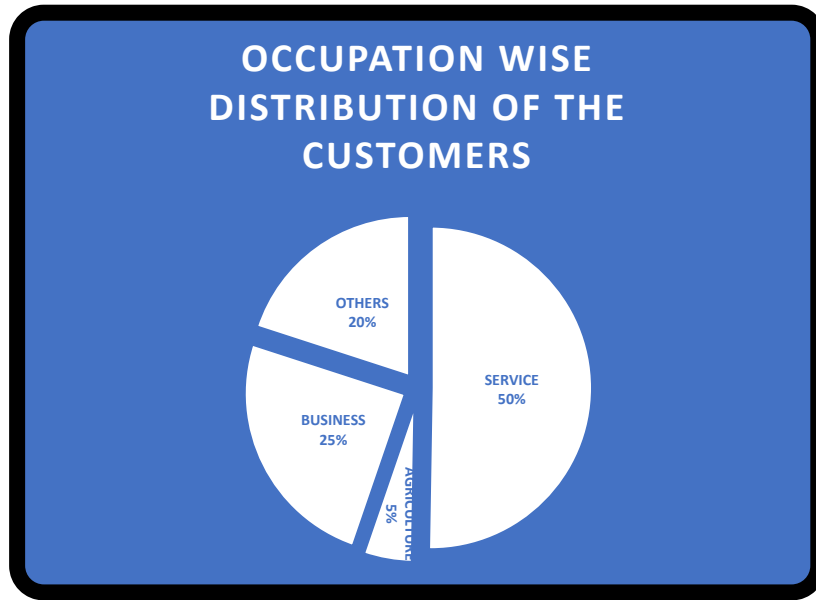
**Table 4.1.5**

**OCCUPATION WISE DISTRIBUTION OF THE CUSTOMERS**

<b>OCCUPATION</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>SERVICE</b>	64 %	44 %	68 %	43 %
<b>AGRICULTURE</b>	4 %	20 %	0	4 %
<b>BUSINESS</b>	24 %	27 %	18 %	39 %
<b>OTHERS</b>	8 %	9 %	14 %	14 %

**Source :Author's Calculation**

**Fig:4.1.5**

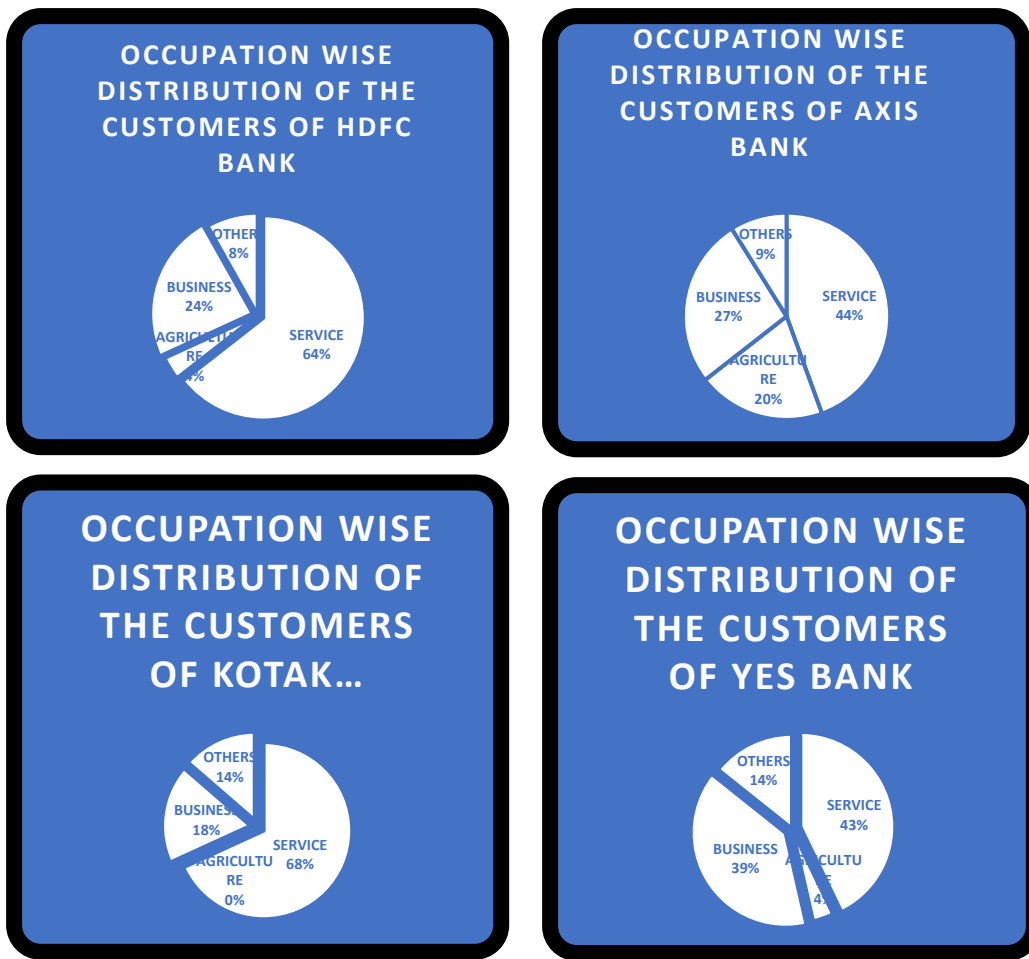


**Source :Author's Calculation**

Table 4.1.5 & Fig 4.1.5 depicts the occupation variability of the respondents.50 % of the respondents belong to the service sector,5 % to the agriculture sector 25% to the business sector & 20% to the other sector. Table 4.1.5 also showcases that all the sample New Generation banks get majority of their customers from service and the business sector. It may therefore be concluded that customers belonging to this category have a higher level of reliability on these New Generation Banks.

Fig 4.1.6 shows a bank wise distribution of the respondents according to their occupation.

**Fig:4.1.6**



Source :Author's Calculation

**4.1.4 EDUCATION:-**

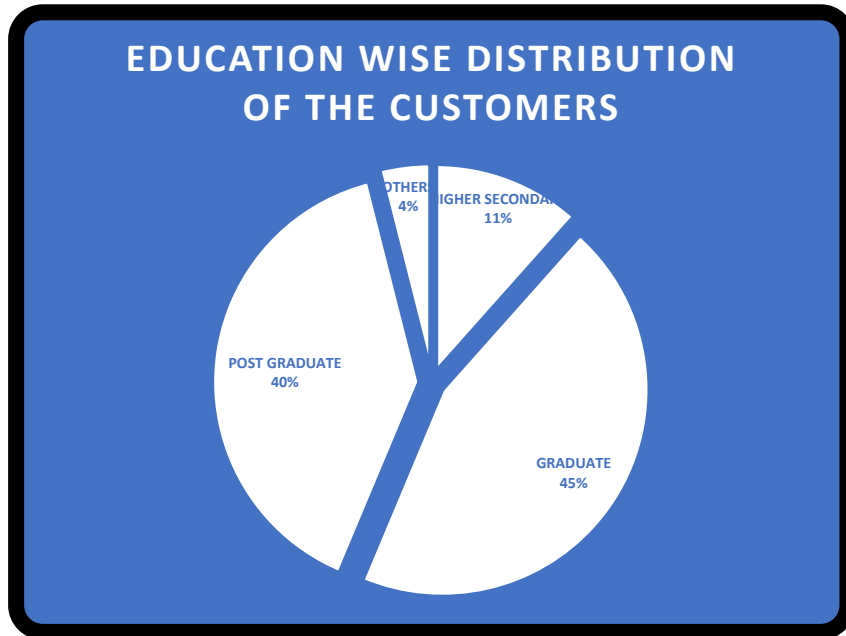
**Table 4.1.6**

**EDUCATION WISE DISTRIBUTION OF THE CUSTOMERS**

<b>EDUCATION</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>HIGHER SECONDARY</b>	31	18	26	17
<b>GRADUATE</b>	13	46	57	48
<b>POST GRADUATE</b>	71	36	13	35
<b>OTHERS</b>	4	0	4	0

**Source: Author's Calculation**

**Fig:4.1.7**

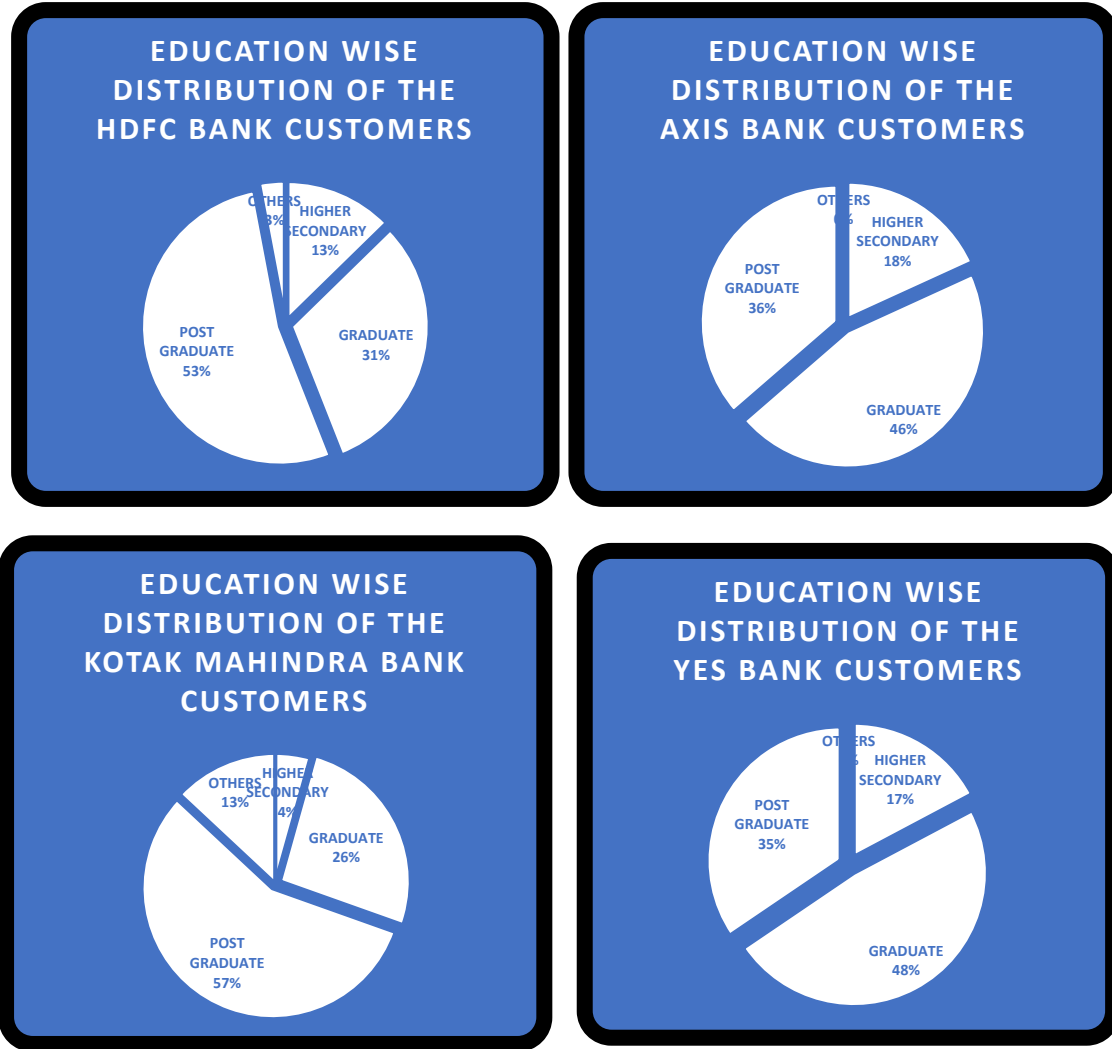


**Source: Author's Calculation**

Table 4.1.6 represents education wise categorization of the respondents of the sample New Generation Banks. The chart depicts that maximum respondents are educated 85% of the respondents are either graduate or post graduates. The importance of being educated here

is that the respondents understands the services provided by the banks and the needs of the customers that has to be addressed by the bank.

**Fig:4.1.8**



**Source: Author's Calculation**

Fig 4.1.8 shows a bank wise categorization of the respondents according to their education level.31% respondents of HDFC Bank are graduates ,53% are Post graduates. Axis bank has 46% respondents as graduates & 36% are post graduates.57% respondents of Kotak

Mahindra Bank are post graduates .Yes bank has 48% respondents who are graduates & 35% Post Graduates.

**Table 4.1.7**

**RELIABILITY TEST**

EDUCATION	HIGHER SECONDARY	GRADUATE	POST GRADUATE	OTHERS	X <sup>2</sup>	P Value
<b>HDFC Bank</b>	31	18	26	17	0.0000000000 000000732417	1
<b>Axis Bank</b>	13	46	57	48	0.0000847014	1
<b>Kotak Mahindra Bank</b>	71	36	13	35	0.002418132	1
<b>Yes Bank</b>	4	0	4	0	0.00159546	1

**Source: Author’s Calculation**

Table 4.1.7 showcases a P value of 1 across all the sample new generation banks ,this therefore proves that education level does not have any significant impact on the decision making process of which bank to open an account into.

**4.1.5 :ANNUAL INCOME**

The study focused on the respondents who were earning less than 2,50,000 Rs to the one’s earning more than 7,50,000 Rs. Banks are usually a place where customers come to deposit their savings .Table 4.1.8 illustrates distribution of annual income through the New Generation Banks.

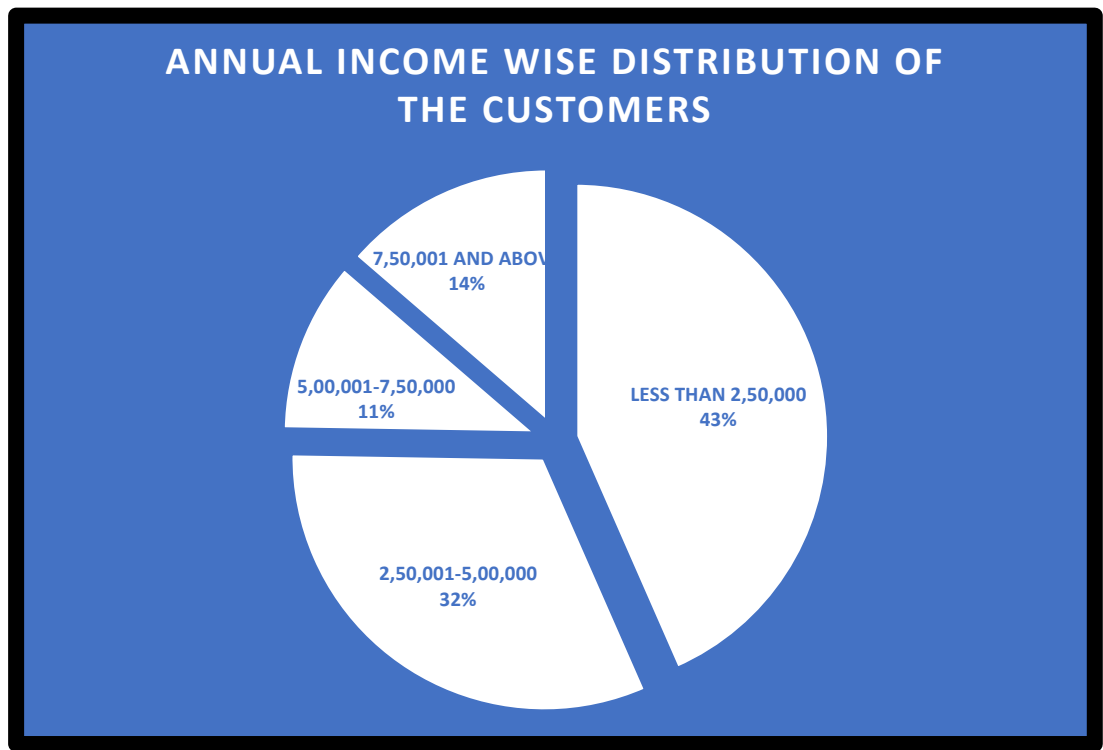
Shockingly 43% of the respondents have an annual income below 2,50,000 Rs 32% were those who earn between 2,50,000 Rs to 5,00,000 Rs 11% were those who earned between Rs 5,00,000 to Rs 7,50,000 & Lastly 14% who earn above 7,50,000 Rs.

**Table :4.1.8**

<b>ANNUAL INCOME</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>LESS THAN 2,50,000</b>	25%	30%	48%	35%
<b>2,50,001-5,00,000</b>	35%	45%	39%	62%
<b>5,00,001-7,50,000</b>	17%	16%	4%	3%
<b>7,50,001 AND ABOVE</b>	23%	9%	9%	0

**Source: Author’s Calculation**

**Fig:4.1.9**



**Source: Author’s Calculation**



#### **4.2- ANALYSIS OF THE IMPACT OF FINANCIAL PARAMETERS ON THE OVERALL PERFORMANCE OF THE NEW GENERATION BANKS:**

Post the establishment of New Generation Banks, the banking sector underwent key changes. With the advancement in the technologies, professional management has gained a realistic point .

The first and foremost objective of the study was to study the impact of Financial Performance on the Performance of New Generation Banks. The Performance of the Sample New Generation Banks is measured through the Ratio Analysis. A Set of 15 Ratios were taken to analyze the performance of these banks .The ratios were namely as follows:

Credit Deposit Ratio	Net Profit Ratio
Deposit to Total Asset Ratio	Deposit to Fixed Asset Ratio
Fixed Assets to total Assets Ratio	Investments to Advance Ratio
Return on Equity Ratio	Interest Expense Ratio
Return on Assets Ratio	Profit Margin Ratio
Equity Multiplier Ratio	Asset Utilization Ratio
Non Interest Expense Ratio	Non Interest Income Ratio
Interest Expense Ratio	

#### 4.2.1-Credit Deposit Ratio (Sample) -

The ratio is usually used for measuring the bank's liquidity by dividing banks total loans and deposits.

The following formula was used to calculate the same:

$$\text{CREDIT DEPOSIT RATIO} = \text{TOTAL LOAN/TOTAL DEPOSITS}$$

The credit deposit ratio of the sample duration banks during the period of study is depicted in the table 4.2.1

Table 4.2.1

CREDIT DEPOSIT RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	0.75	0.77	1.51	0.7
2011-2012	0.77	0.79	1.46	0.57
2012-2013	0.78	0.81	0.95	0.63
2013-2014	0.82	0.82	0.9	0.61
2014-2015	0.87	0.81	1.22	0.83
2015-2016	0.28	0.10	0.15	0.28
2016-2017	0.25	0.12	0.13	0.27
2017-2018	0.33	0.16	0.13	0.37
2018-2019	0.28	0.13	0.14	0.48
2019-2020	0.23	0.13	0.14	1.08
2020-2021	0.20	1.02	0.08	0.39
Average	0.50533083	0.512656673	0.620220869	0.565042407
Minimum	0.20199602	0.097027217	0.084434131	0.270212006
Maximum	0.87	1.018239892	1.51	1.079980638

Source: Author's Calculation and respective Bank's Website.

In the table 4.2.1 it can be reviewed that the highest average credit deposit ratio is with Kotak Mahindra Bank at 0.62. The minimum ratio registered was 0.10 by HDFC Bank in the year 2015-16 and the Maximum was registered by Kotak Mahindra Bank in the year 2010-2011.

Profitability Management Ratios indicate the banks ability ,capability and capacity to earn a substantial amount of profit. The ratios are the indicator of the banks health and stability. The ratios that depict the profitability status of the bank are as follows:

<b>Return of Equity</b>	<b>Asset Utilization</b>
<b>Return on Assets</b>	<b>Non Interest Expense</b>
<b>Profit Margin</b>	<b>Interest Income</b>
<b>Net Profit</b>	<b>Non Interest Income</b>
<b>Investments to Advance</b>	<b>Interest Expense</b>

Table 4.2.16 states the profitability status of New Generation Banks that they have earned during the study period. Each ratio that has been considered above has contributed in some or the other way to the profitability parameter. Once the ratio's are summated in the table they are further by ranked .According to the individual ranks given under each ratio an overall rank is further determined through which the profitability of the banks are ranked. Table 4.2.16 clearly showcases that based on the on the ranks assigned HDFC Bank stands out as the best performer and Yes Bank as the worst performer. Ranking of the banks as per profitability is shown in Table 4.2.17.

**Table 4.2.17**

<b>RANKING OF PROFITABILITY OF BANKS</b>		
<b>BANK</b>	<b>SCORE</b>	<b>RANK</b>
<b>AXIS BANK</b>	<b>25</b>	<b>3</b>
<b>HDFC BANK</b>	<b>29</b>	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>26</b>	<b>2</b>
<b>YES BANK</b>	<b>20</b>	<b>4</b>

Source: Author's Calculation

**4.2.18: LIQUIDITY POSITION OF THE NEW GENERATION BANKS:**

**Table 5.2.18**

<b>LIQUIDITY POSITION OF NEW GENERATION BANKS</b>					
<b>RATIO's</b>	<b>AXIS BANK</b>	<b>HDFC BANK</b>	<b>KOTAK MAHINDRA BANK</b>	<b>YES BANK</b>	<b>RANK TOTAL</b>
<b>CREDIT DEPOSIT RATIO</b>	<b>0.51</b>	<b>0.51</b>	<b>0.62</b>	<b>0.57</b>	
	<b>1</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>10</b>
<b>DEPOSIT TO TOTAL ASSET RATIO</b>	<b>0.71</b>	<b>0.69</b>	<b>0.63</b>	<b>0.64</b>	
	<b>4</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>10</b>
<b>DEPOSIT TO FIXED ASSET RATIO</b>	<b>119.07</b>	<b>150.45</b>	<b>95.01</b>	<b>236.53</b>	
	<b>2</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>10</b>
<b>FIXED ASSET TO TOTAL ASSET RATIO</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	
	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>10</b>
	<b>9</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>40</b>

Source: Author's Calculation

Liquidity is the ability of an organization to generate cash to meet its obligation in case of contingencies. Investors are usually triggered with the liquidity position of the banks, as it speaks about the ability to meet the short term obligation of the bank. As per the list of 15 ratios taken for the study following 4 ratio's can be classified as the list of liquidity ratios-

- Credit Deposit Ratio
- Deposit to Total Asset Ratio
- Deposit to Fixed Asset Ratio
- Fixed Asset to Total Asset Ratio.

According to Table 4.2.18 it can be clearly seen that HDFC Bank ranks as one of the best performer followed by Kotak Mahindra Bank & Yes bank. The Worst performing bank in this sector is Axis Bank.

A cumulative ranking is summated in table 4.2.19.

**Table 4.2.19**

<b>RANKING OF LIQUIDITY OF BANKS</b>		
<b>BANK</b>	<b>SCORE</b>	<b>RANK</b>
<b>AXIS BANK</b>	<b>9</b>	<b>4</b>
<b>HDFC BANK</b>	<b>11</b>	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>10</b>	<b>2</b>
<b>YES BANK</b>	<b>10</b>	<b>2</b>

**Source: Author's Calculation.**

#### **4.2.18 CAPITAL ADEQUACY POSITION OF NEW GENERATION BANKS:**

Capital adequacy analysis states the quality of the assets and the ability of provisions available to meet any shortfalls arising. It explains the relation a percentage of total risk weighted assets and shows the margins available to protect the interests of debtors and creditors against and unforeseen losses that may be showcased.

**Table 4.2.20**

<b>CAPITAL ADEQUACY POSITION OF NEW GENERATION BANKS</b>					
<b>RATIO's</b>	<b>AXIS BANK</b>	<b>HDFC BANK</b>	<b>KOTAK MAHINDRA BANK</b>	<b>YES BANK</b>	<b>TOTAL</b>
<b>EQUITY MULTIPLIER</b>	<b>1121.18</b>	<b>1612.92</b>	<b>297.85</b>	<b>346.13</b>	
<b>RATIO</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>10</b>

**Source: Author's Calculation**

Table 4.2.20 shows the performance of the sample new generation banks. It can be seen that the best performer in this segment is Kotak Mahindra bank followed by Yes bank & Axis Bank. Shockingly HDFC Bank is the worst performer in this segment.

Table 4.2.21 showcases the overall ranking in this segment.

**Table 4.2.21**

<b>RANKING OF CAPITAL ADEQUACY OF BANKS</b>		
<b>BANK</b>	<b>SCORE</b>	<b>RANK</b>
<b>AXIS BANK</b>	<b>3</b>	<b>3</b>
<b>HDFC BANK</b>	<b>4</b>	<b>4</b>
<b>KOTAK MAHINDRA BANK</b>	<b>1</b>	<b>1</b>
<b>YES BANK</b>	<b>2</b>	<b>2</b>

**Source: Author's Calculation**

#### 4.2.21 RANKING OF BANKS ON THE BASIS OF OVERALL PERFORMANCE

To analyze the overall performance of the New Generation Banks all the 15 selected ratios will be scrutinized and the banks will be ranked according to the same.

Table 4.2.22 highlights the ranking of the New Generation bank. A total score of 150 was given to the New generation Banks .Out of 150 HDFC scored 44 for the second place there was a tie between Axis bank & Kotak Mahindra Bank at a score of 37.The third place was therefore skipped. Yes bank stood at the fourth place at a score of 32.

Hence it was proved that HDFC Bank is the market Leader as far as the sample New Generation Banks are concerned.

**Table 4.2.22**

<b>RANKING OF OVERALL PERFORMANCE OF BANKS</b>		
<b>BANK</b>	<b>SCORE</b>	<b>RANK</b>
<b>AXIS BANK</b>	<b>37</b>	<b>2</b>
<b>HDFC BANK</b>	<b>44</b>	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>37</b>	<b>2</b>
<b>YES BANK</b>	<b>32</b>	<b>4</b>

**Source: Author's Calculation**

Table 4.2.23

OVERALL PERFORMANCE OF NEW GENERATION BANKS					
	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK	TOTAL
CREDIT DEPOSIT RATIO	0.50533	0.51265667	0.62022087	0.565042407	
	1	2	4	3	10
NET PROFIT RATIO	1.66293	2.67160836	1.50259824	0.841803097	
	3	4	2	1	10
DEPOSIT TO TOTAL ASSET RATIO	0.71278	0.68681824	0.62685452	0.642258935	
	4	3	1	2	10
DEPOSIT TO FIXED ASSET RATIO	119.075	150.449281	95.011564	236.5273747	
	2	3	1	4	10
FIXED ASSET TO TOTAL ASSET RATIO	0.00597	0.00493158	0.01102058	0.002963097	
	2	3	4	1	10
INVESTMENT TO ADVANCE RATIO	0.50462	0.41072807	0.46869672	0.51345559	
	3	1	2	4	10
RETURN ON EQUITY	19.6085	27.368528	8.85384214	8.54508814	
	3	4	2	1	10
INTEREST EXPENSE RATIO	1.26921	0.85882456	1.0390733	2.024946964	
	2	4	3	1	10
RETURN ON ASSET	0.01769	0.0165935	0.0304576	0.005590099	
	3	2	4	1	10
PROFIT MARGIN RATIO	0.46385	0.33708312	0.63307868	-0.43610168	
	2	1	3	4	10
EQUITY MULTIPLIER RATIO	1121.18	1612.92144	297.847267	346.1299355	
	3	4	1	2	10
ASSET UTILISATION RATIO	0.03971	0.1000618	0.04834708	0.039660723	
	2	4	3	1	10
NON INTEREST EXPENSE RATIO	1.06397	0.77189018	1.42026638	1.528324088	
	3	4	2	1	10
NON INTEREST INCOME RATIO	0.222	0.07416563	0.15335005	0.382547582	
	2	4	1	3	10
INTEREST INCOME RATIO	0.07239	0.07930278	0.08351544	0.081025092	
	2	1	4	3	10
	37	44	37	32	150

Source: Author's Calculation.



#### 4.2.22 FRIEDMAN'S TEST:

Friedman's test is a non parametric test which requires restrictive assumptions concerned with the level of Data measurement. The test is used whenever the sample is more than or equal to 3 and each of the sample size is equally parallel to two way analysis of variance.

Under the null hypothesis ,the Friedman's test statistics is as follows:

$$F = \frac{12}{N_k(k+1)} \sum_{j=1}^k R_j^2 - 3n(k+1)$$

The study has a null hypothesis of:

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

For a null hypothesis to **be Rejected** p value has to be less than 0.05 at a significance level of 5%

The decision is taken on the basis of the SPSS 21 result based on which the null hypothesis will be accepted or rejected.

**Table 4.2.24**

BANK	MEAN RANK	CHI SQUARE	P-VALUE
AXIS Bank	1.68	7.654	0.022
HDFC Bank	3.00		
Kotak Mahindra Bank	1.30		
Yes Bank	1.38		

**Source : Author's Calculation through SPSS 21**

Since P Value in the said study is less than 0.05 ,therefore the null hypothesis is rejected at 5% level of significance. Hence it can be concluded that there is a significant impact of Financial Parameters on the Overall Performance of the New Generation Banks.

#### **4.3 ANALYSIS OF THE IMPACT OF NON FINANCIAL PARAMETERS ON THE OVERALL PERFORMANCE OF THE NEW GENERATION BANKS:**

Banking Industry transformation was introduced by the Indian Government based on the sanctions given by the Narasimhan Committee during the year 1991 & 1998.The sanctions given by the committee have duly changed the face of the banking industry.1991 is also known as the year of “Banking Sector Reforms” which had heightened the platform for the private and foreign sector banks .Further these evolved private sector banks were known as the New Generation Banks.

Balance Score Card is a technique that has been developed by Kaplan & Norton in the year 1992. This is a strategic management technique that measures the performance parameters on a holistic approach rather than individualistic approach. The technique emphasizes to take all the factors into consideration that drives the future performance. The balanced score card framework evaluates a business enterprise on four varied perspectives

- **Financial Perspective**
- **Customers Satisfaction Perspective**
- **Internal Business Process Perspective**
- **Learning & Growth Perspective**

Through these four perspective parameters the current study aims to understand:

- A. The impact of Non-Financial Parameters on the overall performance of new generation banks.
- B. How cumulatively both financial & non-financial parameters influence the overall performance of new generation banks.

The relative performance of the new generation bank is being observed and studied by using mean values and standard deviation. The variance in the performance level is analyzed through ANOVA Analysis. Anova analysis is a decision-making tool that tests the hypothesis when three or more populations are equal. The one way analysis of variance is used to determine whether there are any statistically significant differences between the means of three or more independent groups.

1. **Financial Perspectives-** This perspective underlines the need for and importance of finance in an origination and the impact of the same on the overall performance. To develop a mechanism for the measurement of the financial parameters the following ratios are taken into consideration.

<b>Ratio</b>	<b>P Value</b>
Credit Deposit Ratio	0.022882854
Net Interest Margin Ratio	0.002030261
Capital Adequacy Ratio	0.00005
Net Non Performing Assets Ratio	0.991596921

**Sample Calculation:**

- A) **Credit Deposit Ratio-** This ratio measures the relation between how much a bank lends out in comparison to the deposits receive. It helps the banks to access the liquidity and talks about their financial help. If the ratio is high, it means that the banks don't have surplus liquidity to meet any contingent situation. Therefore, it is presumed that a lower credit deposit ratio is acceptable. Credit deposit ratio can be calculated as follows:

$$\text{CREDIT DEPOSIT RATIO} = \text{TOTAL ADVANCES} / \text{TOTAL DEPOSITS} * 100$$

Table 4.3.1

<b>CREDIT DEPOSIT RATIO</b>				
<b>YEAR</b>	<b>HDFC BANK</b>	<b>AXIS BANK</b>	<b>YES BANK</b>	<b>KOTAK MAHINDRA BANK</b>
<b>2010-2011</b>	279.48	141.31	74.80	100.23
<b>2011-2012</b>	325.76	6.63	77.29	101.41
<b>2012-2013</b>	308.20	5.36	70.20	94.98
<b>2013-2014</b>	278.19	4.79	74.99	89.77
<b>2014-2015</b>	268.44	3.15	82.86	88.38
<b>2015-2016</b>	85.02	94.64	87.91	85.59
<b>2016-2017</b>	86.16	90.03	92.57	86.44
<b>2017-2018</b>	83.46	96.92	101.39	88.10
<b>2018-2019</b>	88.76	90.21	106.10	91.06
<b>2019-2020</b>	86.60	89.27	162.72	83.61
<b>2020-2021</b>	84.85	88.18	102.42	79.86
<b>MEAN</b>	179.54	64.59	93.93	89.95
<b>STD DEV</b>	108.759081	49.5197416	25.9481175	6.65460496
<b>ANOVA F- VALUE</b>	<b>12.91586132</b>			
<b>P</b>	<b>0.022882854</b>			

Source: Author's Calculation

Table 4.3.1 showcases the mean result of the 4 sample New Generation Banks. The mean values of the sample banks are as follows HDFC Bank has a mean value of 179.54, Axis Bank has a value of 64.59, 93.93 value has been denoted to Yes Bank and Kotak Mahindra Bank has a mean value of 89.95. A high mean value means a higher dependability of these banks on deposits to lend loans and vice versa. It is further observed in the study that HDFC Bank has highest value both in Mean Value and standard deviation. Whereas Kotak Mahindra Bank has the third largest mean value and the least standard deviation.

P Value while considering the Credit Deposit Ratio is 0.022 which is less than the significance level of 0.05.

**Since out 4 ratios under the Financial Perspective ,3 of them show a P Value of less than 5% significant level, It can be therefore be concluded that Financial Parameters have a significant impact on the overall performance of the New Generation Banks.**

**2)Customer Satisfaction Perspective:** Under this specific perspective, the banks focuses on the requirement of the customers and how exactly they satisfy their requirements.

The ratios considered under this perspective are as follows:

<b>Ratios</b>	<b>P Value</b>
Market Share in Deposits	0.658.
Ratio of Marketing expenses to Volume of Business	0.025
Ratio of Priority Sector Advances to Total Advances.	0.000717824

**Therefore it has been found that out of 3 ratios in two of them P value is less than 0.05 therefore it can be concluded that customer satisfaction level does have a significant impact on the Overall Performance of the New Generation Banks.**

**3)Internal Business Process Perspective:** This perspective basically aims at figuring out the processes which the organization should maintain to excel. In the current study the following ratio's are duly taken into consideration.

<b>Ratios</b>	<b>P Value</b>
Cost to Income Ratio	0.000140671
Business Per Employee Ratio	0.027444018
Profit per Employee ratio.	0.982164599

**In the current section ,it is found that out of the 3 ratios 2 have a significance value of less than 5%,hence it may be concluded that Internal Business Process Perspective has a significant effect on the overall performance of New Generation Bank.**

**4.Learning & Growth Perspective**-This perspective focuses on the learning and development of the employees and the opportunities available for the employees to grow and evolve.

The ratios to consider under the same are as follows:


<b>Ratios</b>	<b>P Value</b>
Number of Automated Teller Machines	0.378445804
Number of Skilled Employees	0.023
Ratio of Wage Bills to Total Income	0.009584279

**In the current perspective two out of three ratios have a P value of less than 0.05,it may there fore may be concluded that Learning and Growth Perspective have a significant impact on the overall performance of New Generation Banks.**

**Table 4.3.14**

<b>BALANCED SCORE CARD STRUCTURE:</b>				
<b>BANK</b>	<b>Financial Perspective</b>	<b>Customer Satisfaction Perspective</b>	<b>Internal Business Perspective</b>	<b>Learning &amp; Growth Perspective</b>
<b>HDFC BANK</b>				
<b>AXIS BANK</b>				
<b>KOTAK MAHINDRA BANK</b>				
<b>YES BANK</b>				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

Table 4.3.13 shows that apart from the Financial Perspective ,Customer Satisfaction Perspective ,Internal business Perspective & Learning and Growth Perspective equally have a significant impact on the Overall Performance of the New Generation Bank: Hence- the second Null Hypothesis –

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**Is Rejected**

#### **4.4 FACTORS PROMINENTLY EFFECTING THE PERFORMANCE OF NEW GENERATION BANKS:-**

From the above framework used ,if we determine a stage wise analysis we would find that in every parameter there are certain prominent factors and certain non prominent factors that determine the performance of New Generation Banks.

**Table 4.4.1**

##### **Financial Factors Effecting the Performance of New Generation Bank**

FINANCIAL PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Credit Deposit Ratio				
Net Interest Margin				
Capital Adequacy Ratio				
Net Non Performing Asset Ratio				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**


From Table 4.4.1 it can be concluded that the following factors play a prominent role in determining the overall performance of New Generation Bank-The total amount of Deposit and Advances issued and taken by the NGB's, Interest Earned, Interest Expended, Capital Adequacy status .

**Table 4.4.2**

**Customer Satisfaction Factors Effecting the Performance of New Generation Bank**

CUSTOMER SATISFACTION PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Market Share in Deposits				
Ratio of Marketing Expenses Volume of Business				
Ratio of Priority Sector Advances to Total Advances				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

Table 4.4.2 speaks about the factors effecting the Overall Performance from the customers satisfaction Perspectives. It was deduced that Ratio of Marketing Expense to Volume of




Business and Ratio of Priority sector Lending to total advances are the contributing factors from the customer satisfaction perspective.

**Table 4.4.3**

**Internal Business Process Factors Effecting the Performance of New Generation Bank**

INTERNAL BUSINESS PROCESS PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Cost to Income Ratio				
Business per Employee				
Profit per Employee				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

From Table 4.4.3 it was concluded that the Ratio between Cost to Income and Business per employee were the contributing factors towards the overall performance from the Internal Business Process Perspective.

**Table 4.4.4**

**Learning & Growth Factors Effecting the Performance of New Generation Bank**

LEARNING & GROWTH PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Number of ATM's				
Number of Skilled Employees				
Ratio of Wage Bills to Total Income				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

From table 4.4.4 it has been found that Number of Skilled Employees and Ratio of Wage Bills are the most contributing factor under Learning & Growth Perspectives.

Therefore through the above analysis :

**H<sub>03</sub>**- There is no significant correlation of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

**Is Rejected**

## **4.5 CUSTOMER PERCEPTION ANALYSIS OF NEW GENERATION BANKS.**

Customer perception is a general customer perspective, thought, awareness and feelings about the company and its product and service offerings. Customer feedback is also called customer feedback. Customer perspective refers to the process by which a customer selects, organizes, and interprets informative / dynamic inputs to create a meaningful product or product image in a variety of categories.

### **4 Categories of Customer Vision**

Customer Visualization is a three-stage process that translates crude motives into meaningful information.

Each person interprets the meaning of encouragement in a way that is consistent with their different biases, needs and expectations. Three stages of visual acuity, attention, interpretation and memory

#### **1. Exposure**

Exposure includes elements such as colors, logo, sound, ambience that a customer acquires when interacting with a product or product. When we see a certain color and taste a unique taste it can get our attention that makes the second stage.

#### **2. Attention**

Attention arises from the image when the exposure phase ends and the customer recognizes the message and product being marketed. If attention is given to a positive experience, it may enter the translation phase.

### **3. Translation**

Interpretation is the way a customer shares the meaning or value of an input and information in the first 2 stages of customer perception. It can lead to comparisons with other similar products or similar experiences in the past. All in all the customer gives some meaning to what is being done with the product.

### **4. Maintenance**

Now the final stage is where the customer remembers the interaction of future indicators by keeping it in memory. This means that the customer's opinion is already formed. It may be positive or negative as well.

#### **4.5.2 ANALYZING THE PERCEPTION OF THE CUSTOMERS OF SAMPLE NEW GENERATION BANK-**

Customer Perception about the sample new generation banks were categorized on different criteria and the responses of the respondents were recorded.

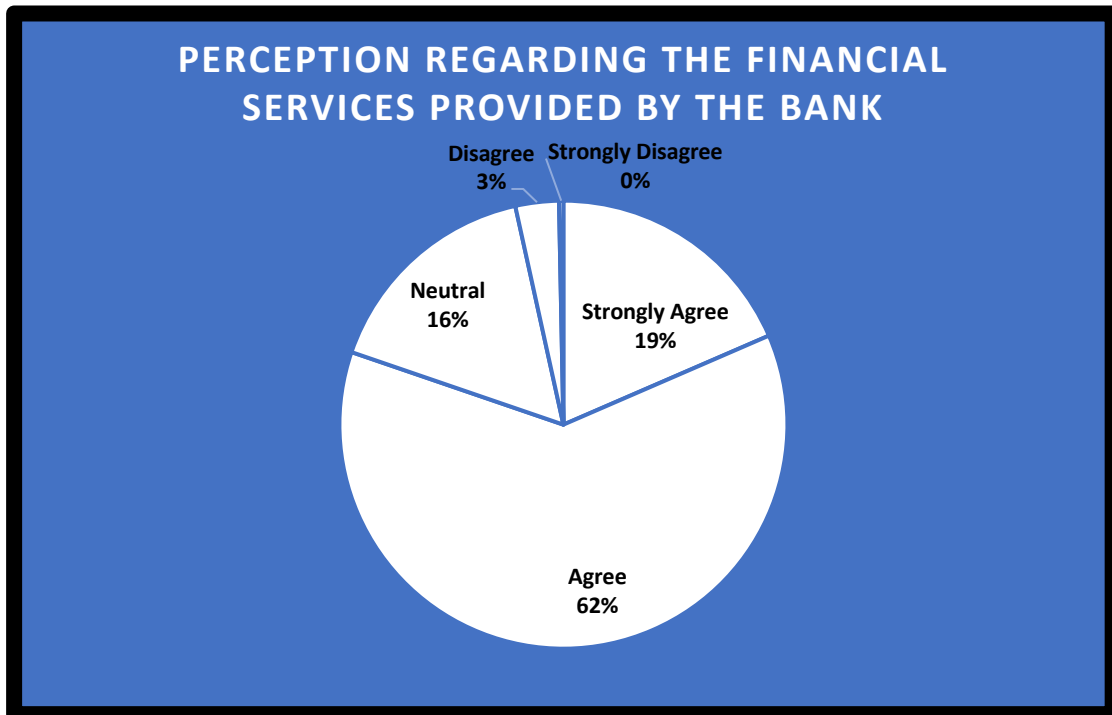
Perception of the respondents were categorized on the following pointers:

- A. Perception on the Financial Services Provided by the bank**
- B. Perception on the Staff Support provided by the bank**
- C. Perception on the Environment of the Bank**
- D. Perception on the Internal Process of the Bank**
- E. Perception on the Overall Performance of the Bank**

- A. Perception on the Financial Services Provided by the bank-**

Jignesh Valand in his study “A Study on Perception of Bank Customers towards Financial Services Quality in Selected Cities of Gujarat” stated that it was necessary for the banks to evolve themselves in order to ensure that the customers are provided top notch financial services.

**Fig 4.5.1**



**Source: Author’s Calculation**

Fig 4.5.1 explains the responses on the perception of the respondents regarding the financial services provided by the new generation bank. The responses were analyzed on the basis of variety of questions -Are they satisfied with the financial knowledge provided by the banks, Are they satisfied with the financial facility provided by the bank etc.

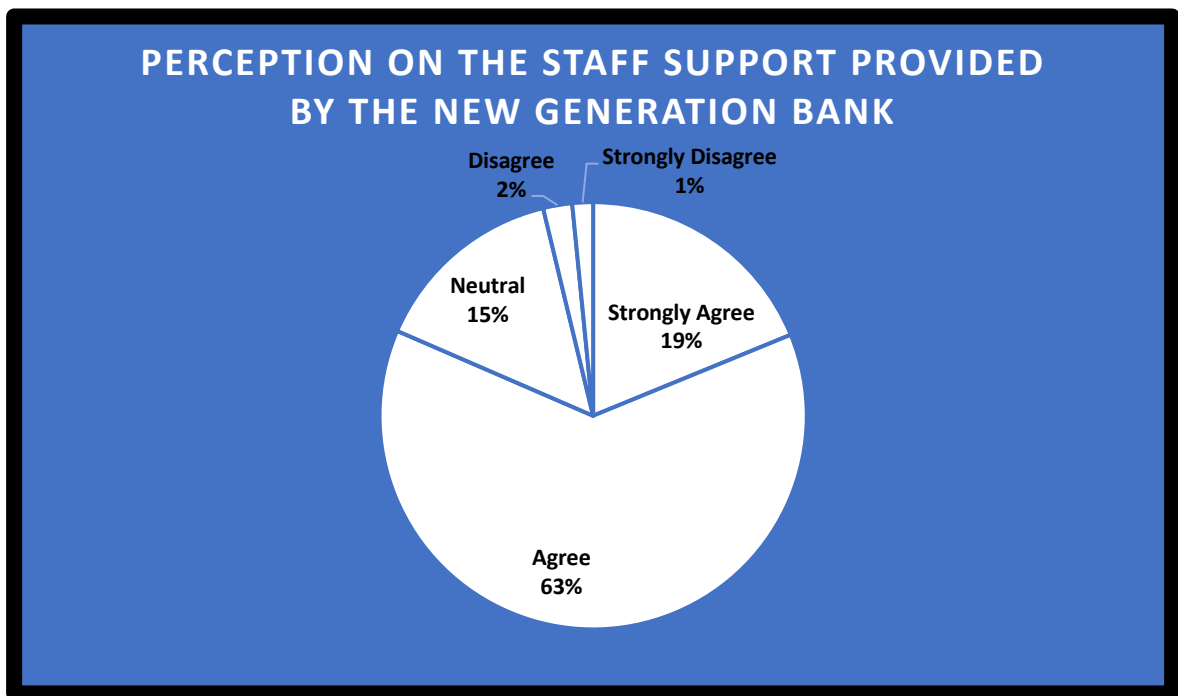
Through the above figure it is found that 19% respondents strongly agree that they are highly satisfied with the services provided by the new generation bank.62% respondents agree on their satisfaction level with the services provided by the New Generation

Bank.16% respondents were neutral ,3% respondents disagree with the services that were provided. Through the above responses it can be concluded that the respondents are satisfied with the Financial services provided by the New Generation Banks.

**B. Perception on the Staff Support provided by the bank:-**

Adefulu, A., & van Scheers, L. (2016). Consumer perceptions of banking services: Factors for bank’s preference in their study stated that how the perception of the customers effect the choice of banks the customers adopt.

**Fig 4.5.2**



**Source: Author’s Calculation**

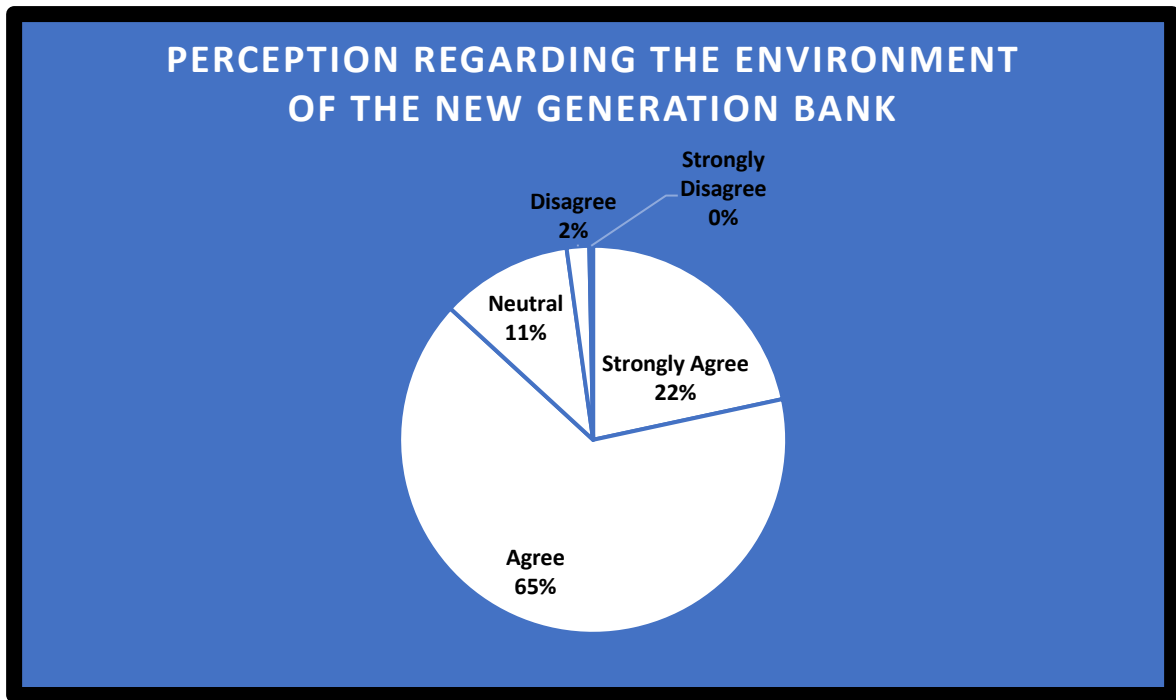
19% of the respondents strongly agree that they are satisfied with the staff support ,63% of the respondents agree that they are satisfied with the staff support services provided,15% respondents were neutral to the services provided. Whereas 2% disagree were not happy

with the staff services provided and 1% strongly disagree with staff support provided by the .It can hence be concluded that the customers of sample New Generation Banks are satisfied with the staff support provided by the bank.

**C. Perception on the Environment of the Bank :-**

Shalu Katyal & Dr Shefali Nagpal in their paper Role of Green Banking in sustainable development in India stated in their paper that the essence of sustainability of new generation banks depends upon the green banking practices they follow.

**Fig 4.5.3**



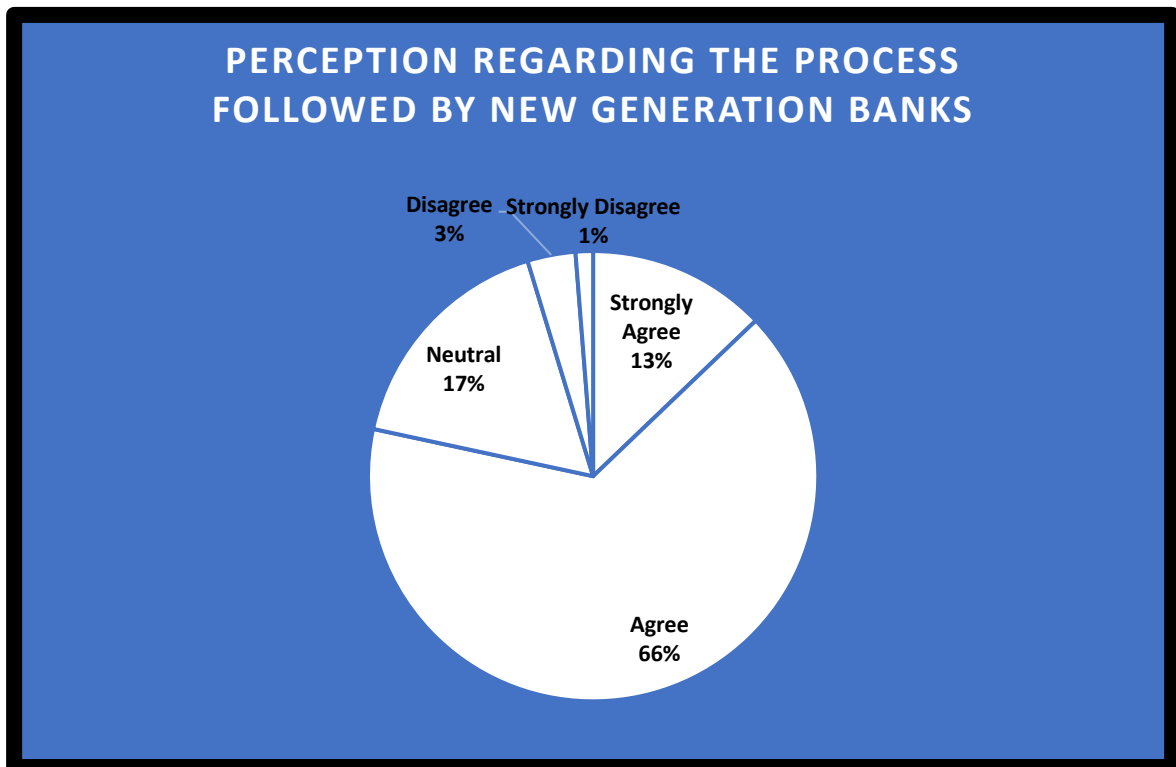
**Source: Author's Calculation**

22% of the respondents strongly agree that their New Generation Banks follow green banking practices.65% respondents agree to the same where as 11% of the respondents are neutral. Only 2% of the respondents did not agree that their banks did follow green banking practices.

#### D. Perception on the Internal Process of the Bank-

INTERNAL ENVIRONMENT AND PROFITABILITY OF BANKS: THE TERMINAL BENEFITS NEXUS A study by Anthony Nzeribe Chizue Nwaubani PhD, FCA, ACIB studied the correlation between the essence of Internal Environment impacting the profitability of the banks in Sub Saharan.

Fig 4.5.4



Source: Author's Calculation

Fig 4.5.4 states that 13% of the respondents strongly agree that their New Generation Banks have a systematic Internal Process with which they are satisfied. 66% of the respondents agree to the same whereas 17% have a neutral stand. 3% of the respondents disagree with the satisfaction level of the Internal Process services provided by the New Generation Bank & 1% strongly disagree with the fact.

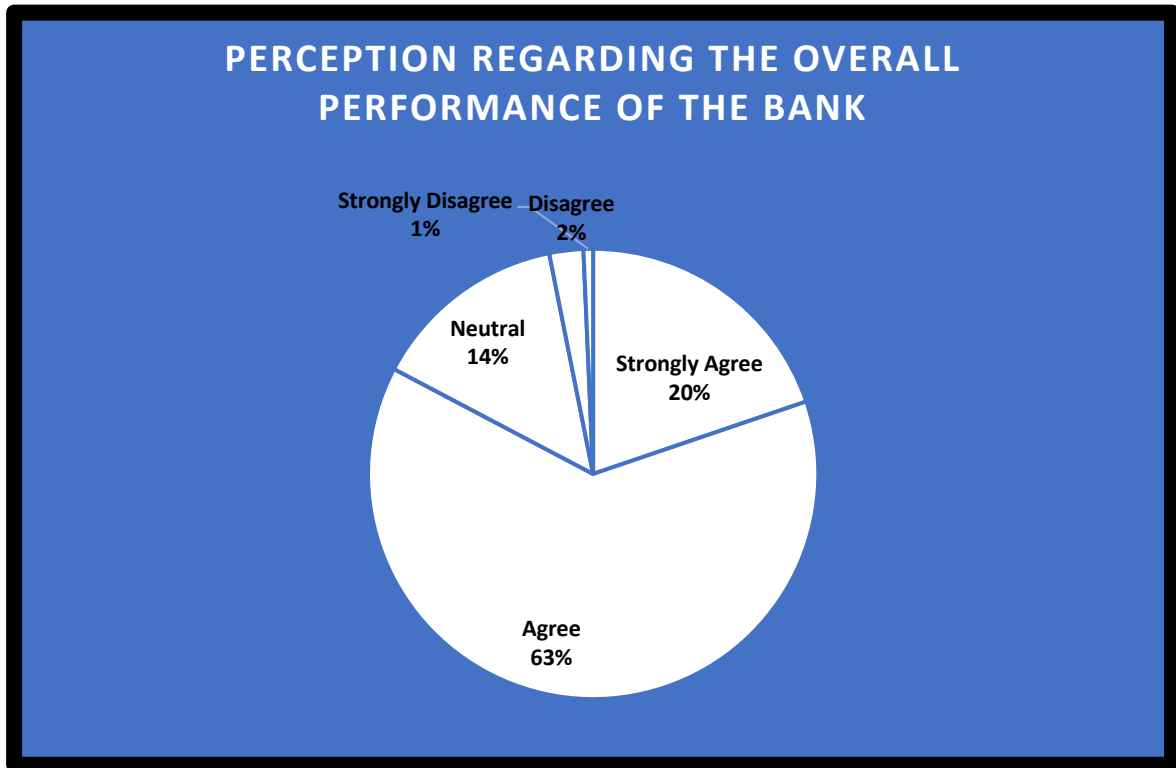
Hence it can be safely concluded that the customers of the sample new generation banks are satisfied with the Internal Process of the sample new generation banks.



### E. Perception on the Overall Performance of the Bank

To access the overall perception of the New Generation Banks a cumulation of all the responses were taken into account to analyze the impact of the perception of the customers on the overall performance of the New Generation Banks.

**Fig 4.5.5**



**Source :Author's Calculation**

From the above figure ,it is clear that 20 % of the respondents strongly agree & 63% respondents agree that they are satisfied with the overall performance of the Sample New Generation Banks .Whereas 14% of the respondents held a neutral position regarding their preference ,where 2% respondents disagree with the overall performance of the New Generation Bank & 1 % strongly disagree with the overall performance of the New Generation Bank.

## **CHAPTER V**

### **CONCLUSION**

The Indian banking sector has undergone major changes following the reform of the banking sector. Major changes have taken place in the structure of the bank, operations, part of the business, a workplace that includes the use of a banking system and Other deliveries channels. The advent of the new generation of banks created competition and efficiency for operation of banks in India. Banks are established nationally where ownership is held by The Indian government has lost part of the market share due to tense marketing pressure by new private banks. The recent economic downturn has affected the quality of goods and profits of Indian banks. Emergence of digital banking and other innovations bank channels are the latest trends in the banking sector. Profitability is a major problem for Indian banks. Changes in the banking sector, competitiveness, prudent asset management, Basel systems, banking system and high level of concentrated assets has contributed to the profitability of banks. Despite the evil above conditions for private banks, especially new private banks, to operate rather good. Private sector banks have recorded high levels of business growth, profits service delivery channels and digital banking over the past 20 years and research focused are helping Indian banks to improve their profits. Private Banks have an important role in the Indian Banking Sector. Private corporate banks show structure efficiency for their private ownership benefit.

## 5.1 Findings

The current study aims to define a balanced relationship between the Financial and Non Financial Parameters and their effect on the overall performance of the New Generation Bank. The following are the findings of the study:-

### **Effect of the Demographic Profile on the Banking Performance:-**

- The study has 68% male respondents and 32% female respondents which has a further bank wise classification as well. Enav Friedmann, Oded Lowengart in their study –“The Effect of Gender Differences on the Choice of Banking Services” stated that banks usually have preferential treatment with the kind of gender involved in their banks ,but through further investigation it was discovered that in the current study ,Gender does not have any pivotal role.
- The study records responses of respondents who have varied age frame.16% of the world’s population belongs to the youth and if the banks fails to cater them, they shall be failing miserably. But analysis of the current study prove that age does not have any effect on the overall performance of the New Generation Bank.
- The study has respondents who are Higher Secondary, Graduate ,Post Graduate & Professionally qualified. It can be said that when the respondents were filling their responses they knew what they were filling in, hence their responses can be considered as valid. But the study does not provide for any significant relation between Education and the performance of New Generation Bank.
- The study has recorded responses of customers earning between Rs 2,50,000 to more than Rs 7,50,000 but does not significantly impacts the performance of the New Generation Banks.

Hence it can be concluded that none of the Demographic parameters effect the Performance of the New Generation Banks.

### **Effect of Financial Parameters on the Overall Performance :-**

To study the impact of Financial Parameters on the Overall Performance of New Generation Banks we conducted a study using 15 ratio's. Each Ratio impacting the organization in some way or the other. The 15 ratio's were further categorized further into 3 categories of Profitability, Liquidity & Capital Adequacy post which we categorize and rank them on the basis of overall performance.

- On the basis of profitability, we find that HDFC Bank is the best performer ,followed by Kotak Mahindra Bank, then by AXIS Bank & Yes Bank.
- On the basis of liquidity ,HDFC Bank still is the ruler, but there is a tie for the second place between Kotak Mahindra Bank & Yes Bank and the last place is taken by Axis Bank.
- On the basis of Capital Adequacy, there is a reverse ranking top rank is bagged by Kotak Mahindra Bank followed by Yes Bank & Axis Bank. Shockingly the last place is held by HDFC bank
- On the basis of overall performance HDFC Bank hold the first position followed by Axis Bank & Yes Bank who had tied in for the second place and the last place was held by Yes Bank.
- Post the analysis of the ranks ,all the scores were taken into the analysis under the Friedman Analysis where we arrived at a P Value of 0.022 which is less than 5% significance level, which helps us prove that Financial Parameter does have a significant impact on the Overall Performance of the New Generation Bank.

## **Effect of Non Financial Parameters on the Overall Performance :-**

To study the Non Financial Parameters impacting the Overall Performance ,Balance Score Card was implemented where 4 kinds of perspectives were examined:-Financial, Customer Satisfaction, Learning & Growth & Internal business Processes.

Based on the same following conclusions were drawn:-

- Financial Perspectives examines the performance measurement using the following factors -Credit Deposit Ratio, Net Interest Margin Ratio, Capital Adequacy Ratio & Net Non Performing Assets. It was found that out of the 4 factors that 3 of them significantly effected the overall performance.
- Customer Satisfaction Perspective examines the performance measurement using the following factors-Market Share in Deposits, Ratio of Marketing Expenses to Volume of business & Ratio of Priority sector Lending. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks.
- Internal Business Process Perspectives examines the performance measurement using the following factors-Cost to Income Ratio, Business per employee & Profit per Employee. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks.
- Learning & Growth Perspectives examines the performance measurement using the following factors- Number of Automated Teller Machines, Number of Skilled Employees, Ratio of Wage Bills to Total Income. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks

It can thus be concluded that Non Financial Parameter does effect the Performance of New Generation Banks.

## **Factors Prominently effecting the Performance of New Generation Banks:-**

The following factors were identified as the most prominent factors effecting the Performance of New Generation banks:-

• Credit Deposit Ratio
• Net Interest Margin
• Capital Adequacy Ratio
• Ratio of Marketing Expenses Volume of Business
• Ratio of Priority Sector Advances to Total Advances
• Cost to Income Ratio
• Business per Employee
• Number of Skilled Employees
• Ratio of Wage Bills to Total Income

The above mentioned factors were identified scientifically based on the p value these factors have generated .It was found that all these factors had a p value of less than 5% significance level and hence a valid factor impacting the overall performance of New Generation Banks.

## **Effect of Consumer Perception on the Overall Perception of New Generation Banks:-**

Perception is the most decisive factor on deciding in which bank will the consumer will open his account and what do they perceive about these banks.

Perception Analysis of these New Generation Banks are further categorized into the following points:-

- A. Perception on the Financial Services Provided by the bank
- B. Perception on the Staff Support provided by the bank
- C. Perception on the Environment of the Bank
- D. Perception on the Internal Process of the Bank
- E. Perception on the Overall Performance of the Bank

Through the analysis of these factors it was concluded that the customers were satisfied with the level of services ,support and the environment these sample New Generation Banks have. These can also be taken as one of the reasons because of which the consumers have maintained their Brand Loyalty with their New Generation Bank.

### **5.3 Limitations:**

In our study we have considered only 4 New Generation Banks for a period study from 2010-2021,where we could have considered other Banks as well. Also the study records the responses for its analysis Pan India and it does not restrict to any specific area.

### **5.4 Research Contribution:**

We have applied a new model to study the integrated approach of Financial & Non Financial Parameters effecting the Overall Performance .Previously studies have been conducted to study either of the factors but none of them have used a cumulative approach to arrive at the factors that effect the Overall Performance of the Sample New Generation Bank.

## 5.5 Suggestions:

The findings of the research have **rejected** all the hypothesis :

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**H<sub>03</sub>**- There is no significant impact of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

And it can be concluded that there is a significant impact of Financial & Non Financial Parameters on the Performance of the New Generation Bank.

Therefore the following suggestions, after a proper consultation with the stakeholders of the respected New Generation Banks can be recommended to the New Generation Banks:

- To keep the fundamentals intact
- To keep a check on the required BASEL Ratios to ensure the stability of the banks
- New Generation banks are gaining popularity majorly because of the customer service that they provide ,therefore to ensure the quality of the same is maintained.
- To take into consideration a holistic approach while framing the policy of the banks and not only the financial parameters to ensure maximum adaptability.
- To use the new edge technology to provide better services yet retain the banker customer relation to increase brand loyalty.



## **5.6 Way Forward:**

New Generation Banks have carved a pathway of customer friendly banking for its customers but by ensuring that their fundamentals are intact. Strict RBI compliance norms ensure that these New Generation Banks don't go haywire. Digitalization and Artificial Intelligence also play a main role in the development of these New Generation Banks. Although the banking sector has been around for a long time depending on technology and comprehensive data, The new data-enabled AI technology has four the ability to move forward with innovation as well faster than before. AI can help the better the efficiency, the more growth agenda, improve differentiation, manage risk and regulatory requirements, and of course influence customer feeling. Structure sophisticated AI programs once expensive, limiting key shipping use of conditions (e.g., high frequency trading).Deloitte's latest AI survey of IT and business executives of companies adopt AI technology and found that, from a technical point of view, cost and some adoption obstacles fall, too it becomes easier to do it again integrate AI technology. Organizations do what they set out to do investment in cloud-like, large areas data platforms, and data applications that use updated structures (e.g., microservices and event hubs), finishing key investment required especially development, supply, and rating AI solutions. However, many operational and organizational challenges stay, especially skills gaps as well AI integration is broad organization, to cite two examples

# **CHAPTER I**

## **INTRODUCTION**

# CHAPTER I

## INTRODUCTION

Finance is the lifeblood of a business similarly Financial Institutions are considered as the heart of an economy and its people. These Institutions help the economy to evolve, innovate and revive various sectors .Their primary existence ensures that individual and economic needs expectations and dreams are translated .With the help of these Institutions its easier for the individuals and corporate bodies to give their dreams a platform to transform them into reality. To facilitate this process these institutions have ensured rigid control yet be approachable for the general public.

A Bank is demarcated as a financial intermediary that takes in deposits from the general public and maneuvers these deposits into constructive lending activities, either directly to the general public or through the capital market<sup>1</sup> .A Bank acts as a bridge to supplement capital deficit with surplus where required . Financial Institutions encourage the convention of savings and also as a link between the lenders and depositors . Banks are a regulatory body which allows the customers free acceptance of deposit and withdrawal of funds when required. These Institutions accepts deposits from Individuals and corporate bodies who are in need of them.

Financial sector is the most influential sector that effects the performance of the other sectors in the economy. A repellent Financial sector becomes to be disastrous for the economy and it dislocates the activities of other sectors as well. Consequently an economy requires an effectual and proficient financial intermediary that will ensure consistent and

constructive allotment of resources in all sectors of the economy. Hence it can be concluded that the effectivity and productivity of an economy are positively correlated with the outcome of the financial sector. It becomes mandatory for the Financial Institutions to be regulated in an efficient manner to ensure the universal progression of the economy. To counter the imbalances of the financial sector and its volatile nature it has become utmost important that these financial institutions are highly monitored by the relevant regulatory bodies across the globe. Numerous guidelines and instructions are laid down to ensure the interest of the stakeholders, ensure financial steadiness and advancement of the economy is safeguarded.

Being an integral part of the functioning of an economy Banking sector plays a crucial role in the progression of the country. The progression of the economy and its people are directly correlated with the development of the banking sector. This specific sector acts as a fuel to the agricultural, industrial, trade and service industries. The system inspires the need to inculcate the habit of saving and to ensure sufficient funds are available for the people in need.

## **1.1 OVERVIEW OF INDIAN BANKING SYSTEM**

"A good bank is not only the financial heart of the community, but also one with an obligation of helping in every possible manner to improve the economic conditions of the common people"

- A. Subba Rao Pai founder of Canara bank<sup>2</sup>

The apex bank of India is the Reserve bank of India. It can also be seen as the central bank of our country. The concept of Apex Banks is relatively new but their existence came to inception in early 20<sup>th</sup> century.

The Reserve Bank of India (RBI) was constituted with the endorsement of the Hilton Young Commission. Functioning of the banks in the country are governed by the Reserve Bank of India Act, 1934.

### **Banks were formed for the following reasons-**

- Regularization of issuing banknotes
- To ensure economic stability by ensuring proper reserves are maintained.
- To ensure smooth operation of credit and currency operations.

The banks began their independent operations post being taken over from the Controller of Currency and Imperial bank of India. The existing branches in the cities of Calcutta, Bombay, Madras, Rangoon, Krachi. Kanpur & Lahore became the new branches of Issue Department.

Even after Burma was no longer a part of India, Reserve Bank of India continued to act as the apex bank for Burma as well until Central Bank of Burma came into existence in April,1947. Reserve Bank of India also acted as the central bank for Pakistan until late 1948 post the establishment of State bank of Pakistan came into operation. The bank was nationalised in the year 1949.

Reserve bank of India from its very inception had this peculiar feature where it has been playing a very evident role in developing various sectors especially the in the field of Agriculture. As soon as India inaugurated its mission towards developing the banking system in the country, Reserve bank of India initiated the way of using finance as a catalyst in Nation Development. RBI played a monumental role in the evolution and inception of various organizations like Deposit Insurance & Credit Guarantee Corporation of India, Unit Trust of India and IDBI to ensure the development of the financial infrastructure in the economy.

Post liberalization, the emphasis of the banks shifted back to basic functionality like Monetary Policy, Bank Supervision and regulation into the emerging evolution of Financial Market.

## **1.2 Evolution & Growth of Banking in India**

The 'Arthashastra' written by Kautilya contains the references of the concepts of borrowers and lenders, this is the evidence that in India advancing activities were practiced in the medieval period and the banking system was followed even during the early 4<sup>th</sup> Century BC. We would also find evidences of the concepts of (Prayog Pratyadanam) where states used to charge interest on loaned assets as a source of their revenue. Concepts of implementing business practices such as product lending and prioritizing the claims of the creditors were also practiced back then as well. In the modern history, banking system were introduced in the 18<sup>th</sup> Century after the launch of 3 Presidency banks.

### **1.2.1 The Three Presidency Banks:**

The initial part of the trio was The Bank of Bengal January' 1809, formerly known as Bank of Calcutta, June' 1806. This was further trailed by the inception of Bank of Madras in July 1843 as a Public Company. Bank of Madras has been instrumental in getting relevant modernizations in using the benefits of Joint stock company, implementing the concept of limited liability on the stakeholders and started the most important feature of accepting deposits from the normal customers. One of the last banks established under the British Raj was the Bank of Bombay in the year 1868. These Presidency banks had approximately 70 branches throughout the country were amalgamated into single bank called the Imperial Bank of India in 1921.

### **1.2.2 Presidency Banks to Imperial Bank**

After taking over the Presidency banks, Imperial bank took the role of being 'THE' commercial bank of the country, the lender of the last resort, bankers bank and assisting the governments with their finances. The fundamentals of unification and partnership

worked in the right direction were by these transitions and it gave the necessary boost for the Indian banking system. Between the era of 1865 to 1913 a large number of private banks came into existence for ruling the banking system which they have been achieved to maintain till date.

### **1.2.3 Establishment of Other Private Banks**

The first ever bank established by the people of India was Allahabad Bank which was followed by Punjab National Bank in 1885 with its headquarters situated at Lahore. By 1911 there were many more private sector banks which were established. Such as Bank of India and Canara Bank (1906), Indian Bank (1907), Bank of Baroda (1908), Central Bank of India (1911), and Bank of Mysore (1913).<sup>3</sup>

It was not until 1935 that the banks which were set up in the private segment. It was found that the absence of any

All the banks which were established until 1935 were belonged to the private sector. The bank failure & exploitation of the poor were frequent phenomenon in the absence of any regulatory framework, because of this these private owners of banks were at liberty to use the funds as they wanted, they deemed appropriate. It was due to this reason the Reserve bank of India was started. It used to control & regulate these private sector banks.

### **1.2.4 Establishment of Reserve Bank of India (1935)**

The Reserve Bank of India was established on April 1, 1935<sup>3</sup>, conforming with the provisions of the Reserve Bank of India Act, 1934. Thus, the phasing in of the nation's central bank led to the dissolution of the Imperial Bank era. It performed the core purposes of acting as a banker's bank, the custodian of foreign reserve, the controller of credit and a statutory body for printing and supply of currency notes and hence, the Government of India adopted RBI as its agent to carry out its transactions. But even post inception of RBI the monetary and regulatory framework seemed to lag as the financial institutions experienced a decreased growth rate, and to overcome this shortcoming the Government of India back then decided to introduce a special legislation enacted as the Banking

Companies Act, 1949; to ensure a structure of 1100 scheduled & non-scheduled banks under which commercial banking in India would be supervised and regulated.

### **1.2.5 The Banking Regulation Act**

The enactment was especially constituted for efficient and smooth regulation of the banking companies. Formerly, it was known as Banking Companies Act since it was applicable to only banking companies but thereafter it got amended was retitled as Banking Regulation Act. It facilitated the gearing up the accountability of the certifying of banks, expansion, asset management, the methodologies of operating, mergers and acquisitions, reconstructions, consolidation, liquidation, etc. And this initial step turned out to instigate a transitional phase in the banking industry of India.

### **1.2.6 Formation of "The State Bank of India"<sup>3</sup>**

The evolutionary phase of the Indian Banking Sector was highlighted by the implementation of the First Five Year Plan which emphasized on the empowerment of the Rural India. Prior this stage, the commercial banks along with the Imperial bank had confined their services within the spheres of the urbanised part of India, only, as the Rural half was not still reckoned for the implementation of banking services. Moreover, the commercial banks seemed to be insufficient and unequipped to manage the banking sector of the rural half back then. Considering the aforementioned and to ensure a credit facility that would reach out to maximum number of customers, the All-India Rural Credit Survey Committee had advised for the inception of a state associated and sponsored bank that would act as a replacement of the Imperial Bank and would encourage the functioning of the banking sectors, to the rural areas. With this in 1951, when the First Five Year Plan was launched, the development of rural India was given the topmost priority. Therefore, to serve the economy in general and rural sector in particular, the All-India Committee recommended the creation of a state partnered and state sponsored bank by taking over the Imperial Bank of India, after amalgamating it with the former state-owned or state-associated banks. An act was accordingly passed in Parliament in May 1955 and the State Bank of India got constituted on 1<sup>st</sup> July 1955. However, it was soon realized that State



Bank alone would be insufficient for the development of the economy and more government sponsored banks were required and a subsequently a proposed plan for nationalization was passed in 1968. Thus, forming the third pivotal point in the history of Indian Banking in India.

### **1.2.7 Nationalization**

The need for nationalization was felt upon realization by the government, when they believed that private commercial banks lagged in encompassing social and developmental goals along with banking activities. This was evident from the fact that the industries' share in loans almost got doubled during the period of 1951 to 1968, likely from around 34% to 68%. On the other hand, one of the major key contributors towards the Indian economy as well as which forms primarily constitutes the major occupation of the country (and still is) received less than 2% of the total credit. Observing this and with a view to serve the general mass, The Government of India nationalized 14 banks (refer table 1) in 1969 bringing the total number of branches under government control to 84%. Yet again in April 1980, The Government of India undertook a second round of nationalization, conferring government control upon the six private banks whose nationwide deposits were above 2 million USD, leaving approximately 10% of bank branches in private banks.

**Table 1.1- Banks Nationalized<sup>3</sup>**

<b>S.No</b>	<b>1969</b>	<b>1980</b>
1.	Allahabad Bank	Andhra Bank
2.	Bank of Baroda	Corporation Bank New Bank
3.	Bank of India	Punjab & Sind Bank
4.	Bank of Maharashtra	Vijaya Bank
5.	Canara Bank	Oriental Bank of Commerce
6.	Central Bank of India	UTI Bank
7.	Syndicate Bank	
8.	UCO Bank	
9.	United Bank of India	
10.	Union Bank	
11.	Punjab National Bank	
12.	Indian Overseas Bank	
13.	Indian Bank	
14.	Dena Bank	

Source: RBI website

Joshi and Little (1996) highlighted that the average return on assets in the second half of the 1980s was only about 0.15 per cent, while capital and reserves averaged about 1.5 per cent of these asset. Even though the global accounting standards were not regarded while evaluation of this data, these indicators impacted the banks' true performance in an exaggerated way. Moreover, in 1992-1993, non-performing assets (NPAs) of 27 public sector banks amounted to 24 per cent of the total credit, in addition to it, only 15 public sector banks achieved a net profit, and nearly half of the public sector banks faced negative net worth.

The major factors that contributed towards the deteriorating performance of the banks included the following:

- (a) Extremely rigid regulatory requirements (i.e. a cash reserve requirement {CRR} and statutory liquidity requirement {SLR})
- (b) Low interest rates imposed on government bonds compared to those charged on commercial advances.
- (c) Directed and concessional lending
- (d) Administered interest rates
- (e) Lack of competition in the banking sector

These factors hugely dropped the impulses of the banks to perform efficiently. Although the involvement of the government seemed to have been justified during the initial stages of the economic development, the continuing dominion, comprising excessively large public sector banks, resulted in inefficient allocation of resources and concentration of power. Perceiving this shortcoming and considering the fact that an efficient and effective banking system is a must for the development of every economy, the government thus initiated the 'Banking Sector Reforms'. The commencing point towards these reforms were taken in 1989 by setting up Narasimham Committee.

### **1.3 Major recommendations by the Narasimham Committee:**

The Committee was formed under the chairmanship of M. Narasimham. It was then decided on the basis of recommendations in the 1990s with respect to the reports widely known as Narasimham Committee-I (1991) report and the Narasimham Committee-II (1998) report. Hence, the two recommendations of the respective Narasimham committees formed a turning point in the destiny of the Indian Banking. The year 1991 which also known to be 'Banking Sector Reforms' year, liberated the entry of private sector and foreign banks which provided a stimulus of competition in the banking industry. Consecutively<sup>3</sup>, seven new banks entered the market between 1994 and 2000. Apart from this, over 20 foreign banks started operations in India since 1994. Around March 2004, the new entrants constituting private sector and foreign banks seemed to have gained a

combined share of 20% of the total assets. Along with the recommendations, the consistent reduction in the SLR and CRR rate, introduction of Basel Norms, deregulation of interest rates, redefining of priority sectors, Golden Handshake scheme and mergers of the unstable banks with the more proficient ones; marked an upstroke in the Banking Industry of India.

#### **1.4 The Transformed Monolith Today:**

The banking industry has amassed its total assets worth \$250 billion US dollars in March 2000 to \$1.3 trillion in 2010. The progress is marked at an annual growth of 19 per cent, contributing around 6 per cent of GDP, with a capacity to employ nearly 7.4 million people. Moreover, on an upbeat note, the NPAs, have gradually declined from 15.70 per cent at the end of March 1997 to 2.25 per cent by the end of the same period during 2011.

The banking Sector of India tends to survive during 2007-2008, a period known to be financially critical for all economies around the globe. It did manage to accumulate steady Return on Assets and absolute net profits (see Figure 2) on events of tight monetary policies, inflationary pressures, weakening of trade and commerce, and thus, exhibiting its efficiency.

One of the chief reasons for the surge and transformation of the Indian Banking Sector is strong leadership and regulation by the RBI. The regulatory framework of the country has been rated comparatively a few points higher than those of China, Brazil, Russia, and UK; and at par with the regulatory structure of Japan, Singapore, and Hong Kong and above or at par with USA by FICCI.

#### **1.5 Scheduled Banking Structure in India**

In its gamut the RBI constitutes the Scheduled banks which are further subdivided into Scheduled Commercial Banks and Scheduled Cooperative banks (refer figure 1). The Scheduled Commercial Banks which currently comprises around 80 in number forms nearly three-fourth of the banking system. The Scheduled banks are further classified into three categories:

Public Sector Banks:

There are currently 21 Nationalized banks in India. The public sector accounts for 75% of the total banking transaction in India and the State Bank of India is the largest commercial

bank in terms of volume of all commercial banks. merged with the State Bank of India. Following this merger the SBI is now ranked among the top 50 major banks in the world.

#### Private Sector Banks:

The private sector banks in India represent part of the Indian banking sector comprising of both private and public sector banks. "Private sector banks" are banks in which large portions of shares or equities are held by private shareholders and not by the state<sup>4</sup>.

#### Foreign Banks:

A foreign bank that is responsible for complying with its own local laws and regulations. The lending limits for these banks are based on parental bank fees, thus allowing foreign banks to offer more loans than other sub-banks. Foreign banks are those banks, with their offices overseas. CITI Bank, HSBC, Standard Chartered etc. are examples of foreign banks in India. India currently has 36 foreign banks.

#### Regional Rural Banks:

The Indian government established RRBs on October 2, 1975. The banks provided loans to vulnerable parts of the rural areas, especially smallholder farmers, agricultural workers, and small businesses. There are 82 RRBs in the country. NABARD holds a high position in agricultural and rural development.

## **1.6 ROLE & CONTRIBUTIONS OF INDIAN BANKING SYSTEM:**

The structure of Indian Banking system comprises of 12 Public sector ,22 private sector, 44 foreign and 56 regional banks in our country<sup>5</sup>.

Banks are primarily classified into scheduled and non-scheduled banks. The scheduled banks are then further branched into state co-operative and commercial banks, whereas the non-scheduled banks are divided into primary credit banks, central co-operatives, and commercial banks.

### **INCREASING FINANCIAL GROWTH**

The Indian banking system is at a crossroads. Real estate buyers were protected by improving the visibility of real estate transactions. Introduction of a unique identification number system that made it easier for government transfers. This has greatly benefited the poor. Development of Bankruptcy & Insolvency code also played a very important role. These are acceptable developments. However, the financial sector faces many challenges. Despite the signs that commercial banks are making progress in eliminating non-performing loans, there is still much work to be done. State banks confiscate about 70 percent of assets in the national banking sector. This difficult involvement of state-owned enterprises disrupts markets, making it difficult for India to address the financial gap in key development sectors such as infrastructure, small and medium enterprises and housing. Non-bank financial companies, sometimes called shadow banks, have emerged as an important new source of debt for businesses and consumers. However their growth has also led to interactions with the mainstream banking sector which poses new risks. The financial sector is tackling these issues at a time when it is a challenge for the global economy. Global growth is slower between slower investments and weaker trade. Like many countries, the Indian economy is facing challenges, with weakening consumption and declining investment. Globally, bond yields have plummeted in a low or negative position for a few high-yield bond producers, benefiting a relatively small group but leaving the

productive investment required for broad-based growth, including in India. This creates a difficult background for change. At the same time, it emphasizes the need for decisive action to allow for rapid growth. The chance is too great. Faced with the current challenges, India has the potential to build the world's largest domestic banking industry. The rapid growth of private sector debt will directly add to GDP, jobs and average income. The 2017 Economic Survey was presented to parliament today by the Minister of Finance and Trade and Industry Affairs, Nirmala Sitharaman. The survey highlights that India has a \$ 5 trillion economy, the big banks in the public sector must function properly. The economy wants PSU banks to do their best and support economic growth instead of backtracking on borrowing which has a negative impact on growth and prosperity. India should have at least 6 of the top 100 banks in the world than the current largest PSU Bank which is the State Bank of India which is the 55th largest bank in the world. The survey reveals whether Indian banks were equally large in size in relation to the size of the Indian economy. Studies have shown that more than Rs. 4,30,000 crore of taxpayers' money is invested as government equity in state-owned enterprises. In 2017, every rupee of taxpayers invested in PSU banks on average lost 23 payments requiring urgent attention.

The key to a successful banking system are;

- Implementing favorable demographics
- Modernization of digital infrastructure including JAM & PMJDY
- Uniform Indirect GST

The survey believes that India's growth path depends on how quickly these growth bases are implemented using a well-developed financial system. In developing countries, state-owned enterprises typically include fewer than a large portion of the market share: close to 20 percent compared to 70 percent. The financial sector here produces a lower level of debt compared to other countries. India's credit-to-GDP ratio is 51 percent. That's compared to 136 percent in Malaysia and 70 percent in Brazil. This trend is compounded by the fact that India's total savings rate, which accounts for about 30 percent of GDP, is in line with other countries. Saving is enough, but the system is not using it properly. To achieve the

goal of building a \$ 5 billion economy, debt must grow at a faster rate while maintaining good credit quality and avoiding taking risks.

## **INCLUDING THE PRIVATE & FOREIGN SECTOR**

The extra debt will help meet India's needs in areas such as housing, SMEs and infrastructure. India's annual infrastructure finance gap is expected to be between 0.7 percent of GDP by 2035, more than double the global average of 0.3 percent. Successful debt growth can benefit the poor. Hundreds of millions of Indians, as well as millions of businesses and entrepreneurs, work in the informal economy, with limited access to financial services. Many of them can successfully use credit to build a business or buy motorcycles to get to work. Knowledge of other emerging markets and developing countries provides valuable lessons. In the 1980s and 1990s, a wave of developing countries moved to free up their financial sectors. Central and eastern European countries traded large portions of their financial systems in the early 1990's as they traveled to restructure their previously planned economies. In Latin America, countries including Mexico released their banking systems following a debt crisis in the 1980's. Most, but not all, financial freedoms have been successful. One lesson we can learn: it is important to have strong, independent authorities to control change. International experience also suggests that it is important to make changes in times of power, when the conditions of a major economy are equal and the nation is at a strong economic and financial level. In this context, we see India's recent efforts to strengthen its financial system. The Reserve Bank of India has worked hard to monitor the quality of its assets. The government's corporate banking system is an opportunity to strengthen governance, oversight, efficiency and risk management. We hope that these measures will form the basis of a comprehensive strategy to reduce the role of the public sector in the financial system. The combination of injecting private investors into private banks and full private practice will enhance the sector's ability to support credit, facilitate effective financial interventions, and will reduce ethical risks and financial exposure. Gradually reversing the legal requirement of state-owned banks to provide for operating expenses, as well as important industry lending policy, may also be helpful. These policies end up doing more to distort markets than to expand. India is in a



good position to take advantage of the latest developments in financial technology. India has already established a good foundation for promoting Fintech, which includes the “control sandbox” set up by the RBI, with the help of the World Bank Group. Fintech's top three deals in Asia last year were based in India, and 80 percent of Indians have bank accounts. India is in a good position to share the lessons learned with other countries. India can also continue to enter into its trading spirit and allow the private sector to continue to innovate in the region, for example in the rental housing market.

## **DEVELOPING CAPITAL MARKETS**

India's major markets can play a key role in helping the country achieve its economic goals. Equity market capitalization is over \$ 2.2 trillion, up six percent in 2017-9. However, the credit market remains at an early stage of development. The credit market remains largely dependent on government securities, while the business bond market is dominated by high-profile financiers and the public sector. The issuance of business bonds amounts to about 3.94 percent of GDP, much lower than other emerging markets. Corporate bond revenues increased from about \$ 52 billion in fiscal 2012-3 to \$ 101 billion in fiscal 2016-7. Since then, business bond issuance has remained relatively low. Deepening the Indian financial markets can go hand in hand with bank financing to encourage growth, help create new market areas and attract interest to local and foreign institutional investors. Deep financial markets can be an important way to increase long-term financial flows, especially considering the inconsistencies in the financial liability sector in the banking sector. Globally, long-term financing is increasingly focused on institutional investors such as pension funds, insurance companies, joint funds and private equity funds. We urge India to review its guidelines for local institutional investors, so that additional resources can flow into long-term investments. Another useful step would be to adjust the funding models for your financial development institutions to increase market-based support. As financial markets deepen, new infrastructure financial tools can attract more institutional investors. Globally, pension funds and other institutional investors have an estimated net worth of \$ 136 trillion. Many of these funds would be able to invest more in India if they had a deep money market and the right combination of market tools.

## **EMPOWERING THE NON BANKING FINANCING COMPANIES**

The growth of non-bank financing companies (NBFCs) has played a key role in transferring debt to markets that are less supportive of new products. IFC, an independent arm of the World Bank Group, has been supporting the NBFC sector and assisting underperforming market credit channels. NBFCs have been a useful complement to commercial banks, helping to meet national financial needs for infrastructure, and between entrepreneurs and consumers. The sector has recently experienced inflation, which has led to financial problems among some NBFCs. Most of these non-bank banks are dealing with conflicts of interest, short-term borrowing and long-term borrowing. Mainly dependent on commercial banks and financing market financing. Therefore, some banks have vulnerabilities within NBFCs. Resolving this “fallen balance sheet” issue of weakness in NBFCs and related banks will be an important step in strengthening India’s financial system and reviving economic growth. The recent slowdown in the NBFC sector is an opportunity for government and regulators to reconsider the role of these institutions in India’s financial system. We can welcome the RBI's efforts to strengthen its regulatory and oversight framework for the acquisition of all licensed financial institutions, including all systematic NBFCs. Properly managed, NBFCs will play a key role in promoting innovation in Fintech. That is why it is even more important for policy makers to ensure that NBFCs are properly regulated and implemented as their role in the financial system continues to emerge. The RBI has done a commendable job of overseeing the growth of NBFCs. Going forward, we would recommend that the authorities view the sector as a constructive, diversified combination of different types of institutions with different business models and risk profiles. One should consider using the same risk-based approach to directing NBFCs as you use banks, enforce stricter rules and further institutional scrutiny, depending on the risks they present to the financial system.

## **WORKING TOWARDS BUILDING A STRONGER INDIA:**

It is to emphasize the importance of a strong financial system in order to achieve India's goal of becoming a \$ 5 trillion economy. Allowing more private sector participation in the financial system, making it easier for funds to enter larger markets, and effectively managing key NBFCs are all ways to develop the financial sector in a way that could put India at a faster, more comprehensive growth. . An improved financial plan is essential to delivery. In recent decades, India has made remarkable progress in building a financial sector that meets its unique needs. However in a world where payments can be sent at the click of a button from a basic cell phone, it is important for countries to have financial institutions that ensure stability while providing deep, well-managed markets and fast enough to respond to the industry's rapid innovation. At the World Bank Group, we are proud of our long-standing cooperation with India. Our first project in India, which funded agricultural machinery, took place in 1948, a year after the nation gained independence. Over the years, our support has shifted from focusing on infrastructure and agriculture to economic liberation and poverty reduction. In recent years, we have supported the emergence of real estate finance and microfinance markets. Our financial experts are available to liaise with government as it moves forward with changes in banking and financial systems. As said earlier, it is important to design a system that meets the unique profile of the Indian economy. Conclusion The Indian banking system consists of 20 public sector banks, 22 private banks, 44 foreign banks, 44 local regional banks, 1,542 urban cooperative banks and 94,384 co-operative banks in addition to institutions. of corporate loans. As of January 31, 2017, the total number of ATMs in India has increased to 210,263 and is expected to increase to 407,000 by 2021<sup>6</sup>. The British at the time of the revolution, the subjugation of the state to form private banks and now an increase in the number of foreign banks in India. So, Banking in India has come a long way. The banking industry in India has also reached new heights and changing times. The Indian banking system consists of 18 public sector banks, 22 private banks, 46 foreign banks, 53 rural banks, 1,542 urban cooperative banks and 94,384 co-operative banks as of September. 2017. During FY07-19, deposits grew to CAGR 11.11% and reached \$ 1.86 trillion by FY19. Deposit from Feb 2017, stood at Rs 132.35 lakh crore (US \$ 1,893.77 billion). The use of technology has

brought about a change in the way banks operate. However, the basic features of banking, namely the trust and trust of the people in the institution, remain the same. Most banks are still successful in maintaining the confidence of shareholders and other stakeholders. However, with the fluctuations of the banking business it brings a new kind of exposure to risk. In this paper attempts to identify common feelings, challenges and opportunities in the Indian banking industry. This article is divided into three sections. The first part covers the introduction and general situation of the Indian banking industry. The second section discusses the challenges and opportunities facing the Indian banking industry. The third phase concludes that there is an urgent need for greater emphasis on Indian banking product and marketing strategies in order to achieve sustainable competition over intense competition from national and international banks.

### **1.7 Challenges Faced by the Indian Banking Industry**

Among the signs of progress, the Indian banking industry has faced many challenges in recent times. Few of them –

#### **A. Bad Loans**

At about Rs10 lakh crore, India's gross debt is larger than the total production of domestic products in at least 137 countries. But so far, RBI's efforts to reduce Nutrition (NPAs) in the banking sector have had little effect. The total share of NPAs in India could grow to 10.2% in March 2018, up from 9.6% in March 2017, according to the FSR. In September 2016, the total number of NPAs was 9.2% .Currently, they have hit the central banks, which are in control of the Indian banking system. As of March 2017, the PSB's bad credit rating stands at 75% of its total value. These bad loans are squeezing banks' profits and financial positions, threatening the lives of some of India's largest banks. In the report, the RBI warned that the situation could worsen with any unexpected economic downturn.

#### **B. Cyber threats**

About 95% of India's transactions are paid in cash but with the advent of computers and smartphones, with increasing internet access, Indians are taking digital channels for their

banking needs. Cybercrime crime will be a major threat as a result. FSR has called cybercrime as the most dangerous area for the Indian banking sector. The RBI classifies bank fraud as a transaction involving any fraud, negligence, misappropriation of funds, or fraudulent documents.

#### C. Adequate Capital Sufficiency

One way a bank tries to ensure that it is safe from bad credit is to set aside money as a 'provision'. This money cannot be used for any other purpose including borrowing. As a result, banks have a limited amount of money available for their various activities. Capital Adequacy Ratio measures the value of a bank. If this is the case, the bank may have to borrow money or use lenders' money to lend. This money, however, is more risky and more expensive than the bank itself.

#### D. Unusual Forex Disclosure

"Wild gyrations in the forex market have the potential to put a lot of pressure on the books of Indian companies that have borrowed heavily abroad," Mundra said in a statement. This stress can be affected their ability to pay off debt to Indian banks. As a result, the RBI wants banks to ensure that lending companies do not expose themselves to unnecessary debt in dollars.

#### E. Unused Assets

NPAs have been a major problem in the banking sector over the past few years and have had a significant impact on bank lending. According to a study, total NPAs account for 12 percent of total loan disbursements in the banking system. However, if restructured assets are considered, the accounted assets account will be 10.9 percent of the total loan amount in the system. According to the International Monetary Fund (IMF), about 37 percent of India's total debt is at risk. India's largest bank, the State Bank of India (SBI), has reported a 67 percent reduction in the combined interest rate of Rupees. 1259.49 crore. the third quarter of the 2015-16 financial year and a loan of Rs 20692 crore has not changed.

#### F. Reduced Profit

The banking sector recorded a decline in balance sheet growth for the fourth consecutive year in 2015-16. Profits remained depressed as the return on assets (RoA) continued to be less than 1 percent. In addition, although PSBs make up 72 percent of the bank's total assets, it has a profit margin of only 42 percent of the total profit.

#### G. The Transfer Case

As a reduced benefit, this is also the bud of the growing NPAs in the system. By lowering inflation and adjusting to inflation expectations, the RBI lowered the repo by 100 points between January and September 2015. However, significant policy changes were not reflected in lending rates as banks were unwilling to transfer profits. of low interest policy state due to low availability of funds compared to the background of high NPAs.

#### H. Corruption

The previous scams of the Global Trust Bank (GBT) and Baroda Bank show how few officials misused the freedom they had given and hid in secret to their advantage. These scams have seriously damaged the reputation of these banks and as a result have been profitable

## **1.8 The Road Ahead:**

### **Future of Banking Industry in India:-**

In the post-Covid world, banks and financial institutions embracing new technologies for years will be the winners.

The epidemic introduced structural changes in the operations of banks / financial institutions (FIs) in terms of technology, as well as changes in customer behavior patterns. This is reflected in the increase in Tech-enabled Digital (Retail) payments according to the Reserve Bank of India's annual report of FY 2020-21.

The journey of Indian banks to the adoption of technology began with the recommendations of the C Rangarajan Committee on the use of banking equipment (1984).

Then came the introduction of ledger transmitters (1990), branch automation (1995), and Core Banking Solutions (CBS) in the early 2000's.

The RBI issued licenses to new generation private companies' banks in 1996 to provide customers with computer-based, state-of-the-art, competitive, competitive, and productive banking information.

The RBI also established institutions such as the Institute for Development & Research in Banking Technology (IDRBT; 1996), Clearing Corporation of India Ltd (CCIL; 2001), National Payments Corporation of India (NPCI; 2008), etc. as part of the development. payment market infrastructure and improve the use of technology.

IT Act, 2000 provided further fulfillment in fintech practice by providing legal sanitation. The strong growth in mobile phone users and the increase in internet access have given the development of banking and financial services over the past decade.

According to the RBI, total retail payments for various digital channels stand at R3,58,85,325 crore for FY 2020-21 compared to ₹ 2,80,25,238 crore for FY 2018-19. In this regard, National Electronic Funds Transfer (NEFT) has a lion's share (70%), followed by Unified Payments Interface and Immediate Payment Service on FY 2020-21.

According to a CACI Channel Impact survey (2021), mobile phones are widely used to perform commercial banking operations (87 percent), followed by internet (7 percent). Although more than two-thirds of the millennium (aged 18-37) were comfortable with banks / FIs using Artificial Intelligence (AI) accessing personal data to improve customer service, unlike 55 percent of X-year-olds (ages) . between the ages of 38-53) and 42 percent of people over the age of 54.

Using AI, ICICI Bank has introduced locking services to provide deep and personal banking information in India.

The Covid problem can be turned into an opportunity if banks / FIs use new technologies such as AI, Block-chain, Cloud Computing, Internet of Things (IoT), etc. Given the growing popularity of banking without contact and access to employees, banks. / FIs may be looking at digital rides powered by Know Your Customer (KYC) video, visual offerings, online verification and health care payments for their employees. Also, personal digital trainers can be deployed to assess staff performance to improve productivity with visual and intellectual touch.

Banks may be facing a shortage of qualified personnel with data-related skills. In this regard, banks need to focus on regular training and development of their resources.

Banks need to invest in developing their own technology platforms to transform digital and provide high quality customer information. They need to have customer knowledge to gain the trust of the latest person and act as firefighters against a potential cyber attack. Banks should focus on consumer protection, as well as addressing complaints to prevent unscrupulous individuals from exploiting loopholes in digital systems.

India recently joined the Global Partnership on Artificial Intelligence (GPAI) and established a special team to design a future strategy. The merger between banks, telecom players, and technology companies may accelerate and improve digital investment. A concerted effort should be made to convey financial and digital information to all stakeholders through the use of electronic / print media.

In addition, Information Technology Act, 2000, KYC / Anti-Money Laundering Act, 2002, Bankers Book of Evidence Act, 1891 and Banking Regulations Act, 1949 etc. it needs to be amended to allow for faster adoption of new technologies after Covid-19. time. The clever acceptance of next-generation digital solutions will differentiate the winners from others.



## **1.9 RESEARCH GAP:**

“Performance Analysis is the process of studying or evaluating the performance of a particular scenario in comparison of the objective which was to be achieved. Performance analysis can be done in finance on the basis of ROI, profits etc.”<sup>4</sup>

Performance Analysis is considered to be a parameter in judging the effectivity of an organization. But even while judging the performance usually researchers concentrate on the financial parameters only. While there have been few researches where the performances have been analyzed from the aspect of customer satisfaction level.

Performance Analysis of New Generation Banks have been conducted by various researchers -in the financial area with the help of CAMEL analysis and various other statistical tools and when non financial parameters are considered researchers have analyzed the performance of the banks through the service they provide and the satisfaction level .But when one wants to figure out the performance of a bank it cannot be identified through one single parameter.

When one considers analyzing the performance of a banking institution one needs to strike a perfect balance between the financial and non financial parameters.

The current study aims to find a perfect correlation through which a ground may be set to analyze the performance of a banking institution on a wider perspective where both financial and non financial parameters play a dominant role.

## **1.10 OBJECTIVE OF THE STUDY**

- To analyze the impact of Financial parameters on the performance of New Generation Banks
- To analyze the impact of Non Financial Parameters on the performance of New Generation Banks
- To understand the correlation between the Financial and Non Financial Factors effecting the performance of New Generation Banks
- To find out the most prominent Financial and Non Financial factors effecting the performance of New generation banks
- To study and understand the customer's perception about new generation banks.

## **1.11 HYPOTHESIS :**

The study aims to conduct a research probe into the following:

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**H<sub>03</sub>**- There is no significant correlation of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

## **1.12 SCOPE OF THE STUDY**

The study has considered 4 major New Generation Banks-HDFC Bank Ltd ,Axis Bank Ltd ,Kotak Mahindra Bank Ltd & Yes Bank Ltd. The study has remained engrossed in determining the essential factors that determine the Performance of a New Generation Bank that necessarily does not have to be a financial one.

## **1.13 BENEFIT OF THE STUDY**

The study aims to emphasize the following points :

- Understanding the Position New Generation Banks hold in the current banking industry
- Customer's preference towards New Generation Banks
- Factors that effect the performance of a bank
- Importance of Non Financial Parameters while determining the Performance of a new generation bank.

## **1.14 RESEARCH METHODOLOGY**

The study has been executed with the usage of primary and secondary data accumulated through field study , the annual report of the New Generation Banks and through various reports of RBI etc. A Multi Stage Random Sample Survey method was used for collecting primary information (of the customers of the sample new generation banks) to understand the impact of the New Generation Banks . Questionnaires for the customers of New Generation Banks, have been used to collect primary data.

Data processing and analysis have been done mainly using the following methods/techniques: descriptive statistics and analytical techniques like chi square test ,Friedman Test and ANOVA.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

## CHAPTER II

### REVIEW OF LITERATURE

Educational research on the performance of National Banks and New Generation Bank sectors in India is very important and relevant to the context of the existence of the structure, before taking up such work attempts at this stage to present a review of available resources. courses in the appropriate area of the banks. Formal or formal research in banks and related areas comes from India. Research conducted in the Indian and domestic banking sector is closely related to the institutional activities, operations and development of banks.

Andreas Soteriou (1994)<sup>7</sup> develops a general framework for combining strategic benchmarking with efficiency benchmarking of the services offered by bank branches. In particular, the service-profit chain is cast as a cascade of efficiency benchmarking models. Three models—based on Data Envelopment Analysis (DEA)—are developed in order to implement the framework in the practical setting of a bank's branches: an operational efficiency mode, a quality efficiency model and a profitability efficiency model. The use of the models is illustrated using data for the bank branches of a commercial bank. Empirical results indicate that better insights can be obtained by analyzing operations, service quality, and profitability simultaneously than the information obtained from benchmarking studies of these three dimensions separately. Some relations between operational efficiency and profitability and between operational efficiency and service quality are investigated.

Zacharias Thomas (1996)<sup>8</sup> reveals that the performance of all the nationalized banks in India has been also evaluated since 1984. A period of 10 years from 1984 to 1994 is taken for the study. This study focuses on six parameters used to evaluate the performance of the individual nationalized banks such as capital adequacy, profitability, social banking, growth, productivity, customer service etc. The data required for the study were collected from primary and source. The study reveals the overall performance of all the nationalized banks in India. The relatively poor performance of Syndicate Bank in the various parameters identified in the present study resulted in its dismal picture in all round performance. Except for the two parameters Growth' and 'productivity'. The bank's performance in all the other parameters is really uncomfortable. When compared to Syndicate Bank fourteen banks fared better in overall performance as indicated by their Composite Performance Score (CPS). Only four nationalized banks exhibit poor performance in relation to Syndicate Bank.

Francisco Perez (1998)<sup>9</sup> denotes that the expansion and intensification of banking competition, which has occurred in Spain during the last ten years, has allowed banks and savings banks to define their competitive strategies with more freedom. This paper analyzes the similarities and the differences in their product mix along with its time evolution. In particular, it attempts to identify the different kinds of firms and, on this ground, to analyze whether competition leads to the homogenization (convergence) of product mixes between firms or groups of firms (clubs). The empirical success is higher when specialization clubs are considered, finding increased heterogeneity within the banking system as a whole but increased homogeneity within certain clusters of banks and savings banks.

Mathew Joseph (1999)<sup>10</sup> stated that usage of Service Quality is being increased to reduce costs and eliminate uncertainties. This research emphasizes the part technology played in Australian banking and its influence on delivering recognized service quality. A sample of 440 electronic banking customers was taken and 300 useable questionnaires were analyzed.

The importance-performance grid results indicated that consumers had perceptual problems with some aspects of electronic banking. Some strategic implications are discussed. The six factors identified are: Convenience accuracy, feedback, complaint management, efficiency, queue management, accessibility and customization.

A comparative analysis of the individual dimensions (grouped according to factors) results showed that the respondents do not believe that electronic banking services perform at the level that is consistent with the importance rating specified by customers (Table II). It is interesting to note that even though the performance of banking institutions is not perceived as being of a high standard, 52.9 per cent of the respondents reported they were satisfied with their overall electronic banking experience. It could be argued that the performance of electronic banking services falls within something which might be considered equivalent to the respondents zone of tolerance. This suggests that even though the respondents perceive their electronic banking services as not quality services, they are happy with its performance as long as certain conditions are met. It is considered that further research should be undertaken to ascertain the size and the parameters of this type of zone of tolerance. The ANOVA by age of the respondents yielded some statistically significant differences (Table III). The 41 years and above age group consider having a convenient location, a wide range of electronic services, efficiency, established customer feedback system, complaint management, special services available for the elderly and disabled and access to online directions for new users more important than their younger counterparts.

Mohan (2000)<sup>11</sup> attempts a comparison of the performance among three categories of banks public, private and foreign using physical quantities of inputs and outputs and comparing revenue maximization efficiency during 1992-2000. The findings show that public sector banks perform significantly better than private sector banks but no difference from foreign banks. The conclusion points to a convergence performance between public and private banks in post reforms using financial measures of performances.

Ram Mohan (2000)<sup>12</sup> evaluates the performance of public sector banks consequent to disinvestment by comparing the return to public sector stocks with return to sensex .

They do so on unadjusted as well as risk adjusted basis. They also compute the relative return of private sector banks with respect to sensex and use these to compare public and private sector bank performance. Public sector stock performance on the average was not significantly different from that of the sensex from that private sector bank stocks.

Anjaneya (2002)<sup>13</sup> presence banks restructure a multidimensional approach and encompasses all the activities of the bank such as administrative and HR. Administrative restructuring covering the bank mergers has been considered and efficiency of the banking industry funding cost, risk diversification, economic conditions, revenue benefits, managerial benefits and capital restructuring operations of the bank have undergone a rapid transformation in years. HR restructuring has effect on the banks performance in terms of cost savings and productivity. Finally restructuring renders new corporate look to the banks, optimize investor values focuses on core competence, enhances value addition, creates new talented leadership at the top of the bank with new blood to sustain the competition and to perpetuate into new horizons.

Deepak Jandon (2002)<sup>14</sup> in his article deals with the productivity and efficiency analysis of public sector banks operating in India. This paper defines and an attempt has to be analyses the technical efficiency of public sector banks operating in India applying Data Envelopment Analysis model. In this analysis different quantities of inputs and different levels of output are considered in each case. Data were collected from 19 public sector banks excluding State Bank group operating in India during 2003 -2008. Finally this paper includes two inputs and one output considering one input and one output two different banks as the most efficient banks Punjab National Bank and Oriental Bank of Commerce with interest expenses and operating expenses of respective input but for same level of output, this study takes care of consistent performance of the banks in terms of Public sector banks. PSBs are facing challenges demanding customers and lack of matching skills with private sector banks of India.



This has increased the pressure or efficiency and productivity of the banks.

Kaveri (2002)<sup>15</sup> as per the report on trend and progress of banking in India 2000- 2001. The gross NPAs of scheduled commercial banks increased to Rs.63883 crore to march 2001 from Rs.60408 crore a year ago. Net NPAs on the same date amounted to Rs.32468 crore compared with Rs.30073 crore as at end march 2000. Recovery measures could be classified into two categories: Legal measures debt recovery, national company law, corporate debt, company manager etc. Non-legal measures remind systems visits to borrowers, recovery camp, loan compromise and appointment of professional agencies for recovery. Finally the NPAs analysis in during 1999-2000, shows that recovery from NPAs in some PSBs was RS.3000 crore but the amount involved in fresh NPAs was more than Rs.6000 crore. Consequently each bank has set up credit monitoring department cell at the corporate office and zonal office suitable reporting formats have been devised for branches to provide information on NPA borrowers.

Lyn Thomas and Maria Stepanova (2002)<sup>16</sup> explains that credit scoring is one of the most successful applications of quantitative analysis in business. This paper shows how using survival-analysis tools from reliability and maintenance modeling allows one to build credit-scoring models that assess aspects of profit as well as default. This survival-analysis approach is also finding favor in credit-risk modeling of bond prices. The paper looks at the three extensions of Cox's proportional hazards model applied to personal loan data. A new way of coarse-classifying of characteristics using survival-analysis methods is proposed. Also, a number of diagnostic methods to check adequacy of the model fit are tested for suitability with loan data. Finally, including time-by-characteristic interactions is proposed as a way of possible improvement of the model's predictive power.

Ravi (2002)<sup>17</sup> mainly focuses on this paper is loss making branches and profit making branches in rural areas. The study covers 150 loss making branches and 600 profit making rural branches during the reference period. The parameters selected are cost of deposit, productivity etc. and using the statistical tool regression analysis.

From the result it can be observed that the signs of the co efficient are on the expected lines. From the above analysis the branch performance in all respects becomes very crucial in improving profit and profitability. Finally the loss making branches should mainly focus their attention on recovery of NPAs as the major cause for loss is lower spread due to high NPA position banks at individual level, can identify continuous loss making branches to begin with and study their performance from various angles, but also take up with RBI for different options of dealing with them.

Rama Chandra (2002)<sup>18</sup> states that customer relationship is A continuous process of transaction and customer is becoming more and more demanding, The papers focuses on attracting new customers, improving customer relationship etc. Data have been collected from 2 banks each in the category of public sector and private sector. And improving parameters of customer profile, customer satisfaction, customer needs, behavior of employees at the counter, electronic banking, motivation of bank staff etc. the banks can be made more customer friendly. Top management and senior executive must be committed and dedicated so that the lower employees are adequately motivated to implement better customer relation management.

Thomas (2002)<sup>19</sup> states that Importance and performance of various factors considered In the Electronic Banking Services Technology-based self-service has greatly changed the way that service firms and consumers interact, and are raising a host of research and practice issues relating to the delivery of e-service which has become increasingly important not only in determining the success or failure of electronic commerce, but also in providing consumers with a superior experience with respect to the interactive flow of information. The purpose of this research paper was to establish the relationship between technology and service quality in the banking industry in India. The research was carried through across-sectional survey design which questioned respondents on e-banking services. The population of study mainly constituted of customers of banks within the Central Business District (CBD). The respondents of the study were customers of banks using e-banking services (internet banking, mobile banking and ATM).

The sample in this study consisted of 120 respondents who are users of the e-banking services. The data collected were analyzed by the use of frequency, percentage, means and correlation analysis. The findings revealed that secure services as the most important dimension, followed by convenient location of ATM, efficiency (no need to wait), ability to set up accounts so that the customer can perform transactions immediately, accuracy of records, user friendly, ease of use, complaint satisfaction, accurate transactions and operation in 24 hours.

Vijaya Shree (2002)<sup>20</sup> presence on analyzes the trends in the profit and profitability of banks during the downturn with a view to identify the factors contributing to the stability and improvement in profitability. Banks can manage their profitability by increasing other income and controlling of cost. The profitability in economic downturns depends on these two parameters more than on financial intermediation such as cost of bank deposits and advance and investment. The study confined to the financial result for the year from 1999-2001, analyzing PSBs and Private sector banks. To conclude profitability is a function of burden in economic downturns, the downturns have direct and more effect on interest income and interest expenditure. The above data analyzed that banks keeping their low during downturns of the economy have maintained their profitability. The reasons for bank profitability are technology based services, effective fund management and cash management system when the cost of deposit is too high to minimize risk. Banks can expand advances portfolio through extending credit to the industries, which are less exposed to the downturn syndrome. They have to concentrate more on recovery of loans to reduce NPAs and to keep the position in control and efficient fund management helps banks to manage profitability in downturns of the economy.

Nikhil Agarwal (2003)<sup>21</sup> illustrates that banking and finance is like oxygen to any democracy. Successful democracy can only be achieved by giving citizens effective, efficient and resourceful money management system (MMS). Internet banking has come a long way since the world's first Internet Bank, The Security First Network Bank started offering web based transactional services over the net in 1995.

At present most of the banks around the world have web presence in form of ATMs, Internet Banking and Support services. Concept of e-governance has gained momentum in last 5 years. India is one of front-runners to achieve fully integrated e- governance by 2010. The first and foremost step by the Indian government is to allow foreign direct investment (FDI) and regularize Internet banking in India. In 1998, Indian governments formed an IT task force for initiating organized and serious efforts towards e-governance. At the same time government was facing pressure to make banking more liberal and come up to world's standards. The result of two events can be seen in 21st century. Lot of e-governance initiative was taken around the country with varying degree like initiative by Andhra Pradesh government to provide governmental services to the citizens of the state. Certainly banking has played a pivotal role in successful implementation of these services. The aim of the paper is to prepare a background for discussion on e-banking and e- democracy. This paper looks for such avenues where banking can play significant role in e-democracy. Lastly, authors discuss two case studies based on implementation of e-banking in digital democracy. Farmer Service Centre (FSCs) is a concept originated from usage of smart card technology for village farmers. E-seva is a community billing service helping citizens of Andhra Pradesh to access governmental services online.

Petya Karav (2003)<sup>22</sup> provides new empirical evidence of the impact of financial liberalization on the performance of Indian commercial banks. The analysis examines the behavior and determinants of bank intermediation costs and profitability during the liberalization period. The empirical results suggest that ownership type has a significant effect on some performance indicators and that the observed increase in competition during financial liberalization has been associated with lower intermediation costs and profitability of the Indian banks. Finally, increased competition and the successful performance of Indian commercial banks in the future would largely depend on their ability to improve efficiency and react to market focus.

Mahesh (2004)<sup>23</sup> denotes that the reforms introduced after 1992 are expected to have an impact on the performance of commercial banks.

Thus, the present study attempts to examine the efficiency level of Indian banks for the period 1985-2004. The author employs the technique of stochastic frontier analysis to estimate bank specific cost, profit and advance efficiencies. The results show that deregulation has significant impact on all three types of efficiency measures. Public sector banks rank first in two of the three efficiency measures showing that, as opposed to the general perception, these banks do not lag behind their private counter parts.

Pooja Malhotra (2004)<sup>24</sup> explains that the tremendous advances in technology and the aggressive infusion of information technology had brought in a paradigm shift in banking operations. Internet banking that revolutionized the banking industry worldwide has turned

out to be the nucleus issue of various studies all over the world. However, there has constantly been a literature gap on the issue in India. The purpose of this paper is to help fill significant gaps in the knowledge about the Internet banking landscape in India. The paper presents data, drawn from a survey of commercial banks websites, on the number of commercial banks that offer Internet banking and on the products and services they offer. It investigates the profile of commercial banks that offer Internet banking, using various statistical analyses, relative to other commercial banks with respect to profitability, cost efficiency, and other characteristics. By the end of first quarter, 2004, differences between Internet and non-Internet banks had begun to emerge in funding, in sources of income and expenditures and in measures of performance. It was also found that the profitability and offering of Internet banking does not have any significant correlation.

Ram Mohan (2004)<sup>25</sup> compares that public sector banks and private and foreign banks, based on measures of productivity that use quantities of outputs and inputs. The performance measures of the productivity of a firm consist of two methods, such as Tornquist and Malmquist productivity index. In both factors of productivity index comparing three sectors of banks using as output variables such as loan income, investment income, non interest income and input variables such as interest cost and operating cost for the comparison of the above banks.

In this paper data were collected for 27 PSBs, 21 private banks and 14 foreign banks for the Tornquist methods and 27 PSBs, 20 private banks and 11 foreign banks for Malmquist methods. Final result shows that the comparison remains unaffected although the growth rate of PSBs rises slightly with the inclusion of new banks. When a firm is already at high level of efficiency, there is little room for further improvement and its rate of increase in technical efficiency will be low. Union Bank of India, Canara Bank and Central Bank of India reflect higher level of input and the need to check their interest expenses to achieve higher level of efficiency while Syndicate Bank, Indian Bank and Bank of Baroda needs to decrease their operating cost to be on a higher level of efficiency.

Anandadeep Mandal (2005)<sup>26</sup> attempts to examine, using data envelopment analysis, the productivity performance trends of the Indian commercial banks for the period: 1997-98 – 2004-05. The broad empirical findings are indicative in many ways. First, the increasing average annual trends in technical efficiency for all ownership groups indicate an affirmative gesture about the effect of the reform process on the performance of the Indian banking sector. Second, the higher cost efficiency accrual of private banks over nationalized banks indicates that the nationalized banks, though old, do not reflect their learning experience in their cost reducing manner because of X-inadequacy factors coming out of government rights. This finding also highlights the possible stronger disciplining role played by the capital market indicating a strong link between market for corporate control and efficiency of private enterprise assumed by property right hypothesis. And, finally, concerning the scale elasticity behaviour, the technology and market-based results differ significantly supporting the empirical distinction between returns to scale and economies of scale, often used interchangeably in the literature.

John Raja (2005)<sup>27</sup> discusses to investigate two categories of banks namely government banks and private banks and use Tobin's Q and Return on capital employed as bank performance indicators of bank. Multiple regression analysis on government banks and private banks shows that Indian public sector banks are perfectly fit. The board of directors and board committees of public sector banks has statistically significance relationship with Tobin's Q .

In private sector banks significant relationship with bank performance women director in the board it's contributing significant towards bank performance and it's evident from return on capital employed in PSBs. In private sector have positive influence over Tobin's Q, government banks are older and also have better market valuation than private banks.

Neeru Maheshwari (2005)<sup>28</sup> discusses that in the world of e-business the rapid growth of the market and fierce competition between the increasing numbers of participants add up to new innovations every day leading to short development cycles. New business models and a herd of start-up companies emerge every few months, to exploit the new opportunities. However, business has had rough times trying to keep up with the rapid development of e-business. Despite the fact that more and more efforts are made to grasp the essentials of e-business and in particular e-business models, the existing literature on the subject is scattered. Moreover, the studies are quickly out-dated due to the fast phase of the 'new economy'. A clear need exists for an objective and up-to-date literature study of e-business models. This study is an effort to draw together some of the e-Business models and real-life experiments that has been circling around the e-business models. To study the sweeping changes brought about by e-initiative measures in the banking sector some banks were chosen from public sector like SBI, BOB and from private sector like HDFC. The paper analyses a comparison of the various models using metric method. The different elements of the metric include revenue generation and value proposition, infrastructure. A mathematical model taking into consideration various ranking and weight ages to the elements of the metric has been developed to analyze whether investments in e-initiative increased productivity and profitability in the Indian banking system. The model suggests that the performance of the banking sector has improved considerably. Profitability, customer satisfaction, and many other parameters show a marked improvement.

Wirnkar and Tanko (2005)<sup>29</sup> reveals that despite the continuous use of financial ratios analysis on banks performance evaluation by banks' regulators, opposition to it still thrive with opponents coming up with new tools capable of flagging the over-all performance

(efficiency) of a bank. This research paper was carried out to find the adequacy of CAMEL in capturing the overall performance of a bank; to find the relative weights of importance in all the factors in CAMEL; and lastly to inform the best ratios to be adopted by banks regulators in evaluating banks' efficiency'. The data for the research work were secondary and were collected from the annual reports of eleven commercial banks in Nigeria over a period of nine years (1997 – 2005). The purposive sampling technique was used. The presentation of the data was in tables and analyzed via the Efficiency Measurement System (EMS) 1.30 software of Holger School and independent T-test equation. The findings revealed the inability of each factor in CAMEL to capture the holistic performance of a bank. Also revealed the was the relative weight of the importance of the factors in CAMEL which resulted in a call for a change in the acronym of CAMEL to CLEAM. In addition, the best ratio in each of the factors in CAMEL was identified. For example, the best ratio for Capital Adequacy was found to be the ratio of total shareholders' fund to total risk weighted assets. The paper concluded that no one factor in CAMEL suffices to depict the overall performance of a bank. Among other recommendations, banks' regulators are called upon to revert to the best identified ratios in CAMEL when evaluating banks performance.

Medhat Tarawneh (2006)<sup>30</sup> aims to classify the commercial banks in Oman in cohesive categories on the basis of their financial characteristics revealed by the financial ratios. A total of five Omani commercial banks with more than 260 branches were financially analyzed, and simple regression was used to estimate the impact of asset management, operational efficiency, and bank size on the financial performance of these banks. The study found that the bank with higher total capital, deposits, credits, or total assets does not always mean that it has better profitability performance. Finally service-profit chain has been cast as a cascade of efficiency benchmarking models. Several models - based on Data Envelopment Analysis (DEA)—have been developed in order to operationalize the framework, and their use has been illustrated using data for the branches of a commercial Bank. Empirical results indicate that better insights can be obtained by analyzing



simultaneously operations, service quality and profitability simultaneously, than the information obtained from benchmarking studies of these three dimensions separately.

Rekha (2006)<sup>31</sup> says that risk is the fundamental element that drives financial behavior. Without risk, the financial system would be vastly simplified. However, risk is omnipresent in the real world. Financial Institutions, therefore, should manage risk efficiently to survive in this highly uncertain world. The future of banking will undoubtedly rest on risk management dynamics. Only those banks that have efficient risk management system will survive in the market in the long run. The effective management of credit risk is a critical component of comprehensive risk management essential for long-term success of a banking institution. Credit risk is the oldest and biggest risk that bank, by virtue of its very nature of business, inherits. This has, however, acquired a greater significance in the recent past for various reasons. Foremost among them is the wind of economic liberalization that is blowing across the globe. India is no exception to this swing towards market driven economy. Better credit portfolio diversification enhances the prospects of the reduced concentration credit risk as empirically evidenced by the direct relationship between concentration credit risk profile and NPAs of public sector banks.

Sathish Kumar (2007)<sup>32</sup> states that private sector banks play an important role in the development of Indian economy. After liberalization the banking industry underwent major changes. The economic reforms totally have changed the banking sector. RBI permitted new banks to be started in the private sector as per the recommendation of Narasimhan Committee. The Indian banking industry was dominated by public sector banks. But now, the situations have changed new generation banks using technology and professional management have gained a reasonable position in the banking industry. The main idea of this article is to make an evaluation of the financial performance of the Indian private sector banks.

Singh (2007)<sup>33</sup> says that Hi-tech fraudsters have urbanized a new way of tricking on line banking customers. One such most well known and fast growing technique is phishing. Latest in phishing is application of Trojan horse program. Trojan horse" program insinuates itself into a user's computer via an email and directs the user of the system to website which is exactly similar to financial institution web site. Crooks pick up passwords and account numbers as soon as customer log on to these sites. As is evident from table 1 phishing causes maximum loss to the customers/ institution in comparison to other similar techniques. Keeping in view, the serious threats of phishing attacks author analyzed the trends of major activities of the phishing across globe specifically in the banking sector. In addition, the author analyzed the reasons for increase in finishing activities, types of phishing techniques, and process of phishing. Further, the author has presented recent cases of phishing specifically in banking/ financial sector. Towards the end the author has suggested the measures to combat the fishing in online banking.

Gupta,(2008)<sup>34</sup> focuses on The Indian banking sector, which was predominantly controlled by the government and was liberalized in the early 1990s. The resultant competitive forces, coupled with more stringent regulatory framework, they have created pressure on the banks to perform. Efficiency has become critical for banks' survival and growth. This paper analyzes the performance of the Indian banking sector, measured and compared in two stages: through the construct of productive efficiency using the non-parametric frontier methodology, DEA and finding the determinants of productive efficiency through TOBIT model. Inputs and outputs are measured in monetary value and efficiency scores determined for the period 1999-2003. The study shows that SBI and its group have the highest efficiency, followed by private banks, and the other nationalized banks. The results are consistent over the period, but efficiency differences diminish over period of time. The capital adequacy ratio is found to have a significantly positive impact on the productive efficiency.

Ravi chandran (2008)<sup>35</sup> analyses the efficiency and performance using CAMEL– type variables, before and after the merger for the selected banks which are initiated by the market forces. The results suggest that the mergers did not seem to enhance the productive efficiency of the banks as they do not indicate any significant difference. The financial performance suggests that the banks are becoming more focused on their retail activities (intermediation) and the main reasons for their merger is to scale up their operations. However, it is found that the Total Advances to Deposits and the profitability are the two main parameters which are to be considered since they are very much affected by mergers. Also, the profitability of the firm is significantly affected giving a negative impact on the returns.

Susmi Routray (2008)<sup>36</sup> states that Mobile and Wireless communication devices are becoming enablers for organizations to conduct business more effectively and efficiently. One of the most effective applications is mobile banking (m-banking). For any application to gain recognition technological advancements play a vital role. To make m-banking application a success bandwidth management is an important issue. The increased flexibility and mobility feature of wireless ATM and its bandwidth on demand function is motivating a large number of carriers towards deployment of the WATM networks. But there are certain issues which are required to be addressed in WATM. The issues are cost effective planning of network, location management and handover management. In this paper the author has suggested and evaluated a technological framework for the m-banking application using wireless ATM which optimizes the bandwidth usage and provides an effective handover management. Simulation results show that the resultant framework is very effective in handling the bandwidth and the handover issue in wireless ATM and provides an effective WATM framework model.

Janatul and lal (2009)<sup>37</sup> focuses on E-Banking in Delhi. E-banking can provide speedier, faster and reliable services to the customers for which they are relatively happy. E-banking services not only can create new competitive advantages, they also can improve the relationships with customers.

The purpose of this research is to understand the impact of variables of e-banking on customer satisfaction in Delhi. The study period is from 2006 to November, 2009 because customers enjoyed the e-banking services newly during this period. There are different service quality dimensions namely; assurance, empathy, and tangibles have been established based on the SERVQUAL model and the literature review. These variables have been tested in e-banking to explore the relationship between service quality and the customer satisfaction. The data were gathered through survey interview by a structured questionnaire with 250 customers. The study shows that these factors are the core service quality dimensions for customer satisfaction in e-banking. The study also explores that empathy, tangibles and assurances have more contribution to satisfy the customers of e-banking in Delhi.

Ganesan (2009)<sup>38</sup> notes that internet banking has made it easy to carry out the personal or business financial transaction without going to bank and at any suitable time. This facility enables to transfer money to other accounts and checking current balance alongside the status of any financial transaction made in the account. However, in order to maintain privacy and to avoid any misuse of transactions, it is necessary to follow a secured architecture model which ensures the privacy and integrity of the transactions and provides confidence on internet banking is stable. In this research paper, a secured hybrid architecture model for the internet banking using hyper elliptic curve cryptosystem and MD5 is described. This hybrid model is implemented with the hyper elliptic curve cryptosystem and it performs the encryption and decryption processes in an efficient way merely with an 80-bit key size. The various screen shots given in this contribution show that the hybrid model which encompasses HECC and MD5 can be considered in the internet banking environment to enrich the privacy and integrity of the sensitive data transmitted between the clients and the application server

Meryem, (2009)<sup>39</sup> presences a comprehensive review of 179 studies which employ operational research (O.R.) and Artificial Intelligence (A.I.) techniques in the assessment of bank performance.

We first discuss numerous applications of data envelopment analysis which is the most widely applied O.R. technique in the field. Then we discuss applications of other techniques such as neural networks, support vector machines, and multi criteria decision aid that have also been used in recent years, in bank failure prediction studies and the assessment of bank creditworthiness and underperformance.

Mihir Dash (2009)<sup>40</sup> describes that many firms in the service industry face the problem of disparate results in terms of efficiency. This problem is a cause of concern for many big organizations such as banks, hotels, courier companies, and so on. In particular, the last decade has witnessed continuous fluctuations in management, expertise and struggle in the worldwide fiscal services industry, and Indian banks are no exception. Rising cost-income ratios and declining profitability reflect increased competitive pressure. To assess the stability of the banking system, it is, therefore, vital to benchmark the performance of banks operating in India. An efficient banking system contributes in an extensive way to higher economic growth in any country. Thus, studies of banking efficiency are very important for policy makers, industry leaders and many others who are reliant on the banking sector. The present study investigates the technical efficiency of Indian banks, segmented in terms of ownership. For this purpose, the data envelopment analysis (DEA) model was used with five input variables (viz. borrowings, deposits, fixed assets, net worth, and operating expenses) and four output variables (advances & loans, investments, net interest income, and non-interest income), and the efficiency scores were calculated for a sample of forty-nine major banks operating in India.

Mihir Dash (2009)<sup>40</sup> notes that Asset-Liability Management (ALM) is concerned with strategic management of assets (uses of funds) and liabilities (sources of funds) of banks, against risks caused by changes in the liquidity position of the bank, interest rates, and exchange rates, and against credit risk and contingency risk. An effective ALM technique aims to manage the volume, mix, maturity, rate sensitivity, quality and liquidity of the assets and liabilities as a whole so as to attain a predetermined acceptable risk/reward ratio.

The purpose of ALM is to enhance the asset quality, quantify the risks associated with the assets and liabilities and further manage them, in order to stabilize the short-term profits, the long-term earnings and the long-run sustenance of the bank. The Reserve Bank of India (RBI) has implemented the Basel II norms for the regulation of Indian banks, providing a framework for banks to develop ALM policies. The present study analyses asset-liability management in banks operating in India using the asset-liability guidelines provided by the Reserve Bank of India. The primary objective of the study was to compare the maturity gaps in public, private and foreign banks in the Indian banking industry.

Neha Seth (2009)<sup>41</sup> notes that for the past three decades India's banking system has several outstanding achievements to its credit. It is no longer confined to only metropolitans or cosmopolitans in India. In fact, Indian banking system has reached even to the remote corners of the country. Since the process of liberalization and reform of the financial sector were introduced in 1991, banking sector has undergone major transformation. The underlying objectives of the reform were to make the banking system more competitive, productive and profitable. Indian banks especially the public sector banks and the old private sector banks are lagging far behind their competitors in terms of both productivity and profitability with the exception of the State Bank of India and its associates. The other public sector banks and old private sector banks need to go for the major transformation program for increasing their productivity and profitability. After studying banking reform process it can be suggested that the public sector banks must create strategic alliance with the rural regional banks to open up rural branches and increased use of technology for improved products and services for the same.

Pankaj Sinha (2009)<sup>42</sup> states that recently, a lot of questions were raised about the financial health of commercial banks in India. This paper analyzes the Indian banks' riskiness and the probability of book value insolvency under the framework developed by Hannan and Hanweck (1988). A risk index, known as Z score, for Global Trust Bank that became insolvent in 2004 suggests that the framework developed by Hannan and Hanweck (1988) is also relevant in the Indian context

For a random sample of 15 Indian Banks (public & private sector), the riskiness/probability of book value insolvency over the years is determined and also a relative comparison between public and private sector banks in India is carried out. Results obtained in the study show that the probability of book value insolvency of Indian Banks has reduced over years and the probability of book value insolvency is lower in the case of public sector banks in comparison to private sector banks.

Ramesh Chander (2009)<sup>43</sup> states that co-operative Banks are organized and managed on the principals of co-operation, self-help, and mutual help. These have been playing an imperative role in Indian financial system with broad network in both urban and rural areas. Around three hundred and seventy two District Central Co-operative Banks (DCCBs) with large number of branches and extension counters cater to the needs of nearly one lakh societies in rural India. In Haryana nineteen DCCBs with more than two hundred branches have been facilitating self-sufficiency in food grain production, creation of better employment opportunities and organizational strength to the rural people through banking services. Recently, the scams in co-operative sector, failure and closure of unviable branches, imposition of penalty by the regulators and payment of heavy money claims due to bankruptcy of co-operative banks etc. are few significant reasons which persuade to inquire into the financial affairs of these institutions. Many co-operative banks became insolvent and others are on the brink of mergers or acquisition. The present study was conceptualized to examine the financial viability, efficiency and performance of four DCCBs operating in Gurgaon division in Haryana (India), viz. Gurgaon, Faridabad, Mahendergarh and Rewari for a period of twelve years (1997-98 to 2008-09) by financial analysis and z-score analysis. The financial parameters here taken are profitability, liquidity, efficiency, solvency, risk and bankruptcy. The results reveal that four DCCBs with approximately fifty branches have not been performing well on all financial parameters taken for study. The banks performed well on one parameter but deteriorated on another and in different years as well. All the banks have been a part of bankruptcy zone (weak performance zone) throughout the study period.

Siba Sankar (2009)<sup>44</sup> aims at evaluating the service quality of internet banking (i-banking) services in India from customer's perspective. A structured questionnaire containing 44 quality items is administered to various target groups. Several quality dimensions, viz. accessibility, user friendliness, privacy/security, efficiency, and fulfillment, are identified based on principal component factor analysis. Demographic analysis of the data reveals that gender is hardly a bias for use and evaluation of service quality of i-banking in most of the cases across various categories of customers. A valid mathematical model is proposed to assess the overall service quality using regression analysis. The results show that customers are satisfied with the quality of service on different dimensions such as accessibility, privacy/security, and fulfillment, but least satisfied with the 'user-friendliness' dimension. The empirical findings not only priorities different parameters but also provide guidelines to bankers to focus on the parameters on which they need to improve.

Azila Mohd (2010)<sup>45</sup> states that electronic Customer relationship management performance CRM is a comprehensive business and marketing strategy that integrates people, process, technology and all business activities for attracting and retaining customers over the internet and mobile phone to reduce costs and increase profitability by consolidation the principles of customer loyalty. Therefore, the results of CRM performance are repeat purchase, word of mouth, retention, cross buying, brand loyalty and customer satisfaction. The keen competition in the communication and mobile phone service market place and the increasing numbers of mobile phone users all over the world have influence the researchers to investigate the ease of use and e- service quality as antecedents of electronic customer relationship management performance in mobile phone services industry. 488 questionnaires have been returned and analyzed. Four factors have been tested to investigate the relationship with CRM performance. The analysis shows that e-service quality, and ease of use was positively significant towards CRM performance. This paper makes a theoretical and methodological contribution and suggestion for the managers in improving their CRM performance in mobile phone service industry.



Jayaraman Munusamy (2010)<sup>46</sup> states that in any business-to-customer (B2C) type of environment, satisfying a customer is the ultimate goal and objective. More often than not, it can be quite an issue. This is perhaps due to the fact that organizations sometimes do not really understand of what actually goes on in a customer's mind. As such, this predicament has provided as a challenging task to most business conglomerates that place strong emphasis on customer relations. Although many researches and studies were conducted on the actual working of the customer's mind, till today it is still a mystery. Therefore, this research is focused on the measurement of customer satisfaction through delivery of service quality in the banking sector in Malaysia. A quantitative research was used to study the relationship between service quality dimensions and customer satisfaction. Assurance has positive relationship but it has no significant effect on customer satisfaction. Reliability has negative relationship but it has no significant effect on customer satisfaction. Tangibles have positive relationship and have significant impact on customer satisfaction. Empathy has positive relationship but it has no significant effect on customer satisfaction. Responsiveness has positive relationship but no significant impact on customer satisfaction. The study highlights implications for marketers in banking industry for improvement in the delivery of service quality.

Kalyan Kumar (2010)<sup>47</sup> states that the banking industry of India is now running in a dynamic challenge concerning both customer base and performance. Service quality, customer satisfaction, customer retention, customer loyalty and delight are now the major challenges in gripping the banking sector. Service quality plays a major role in getting customer satisfaction and creating brand loyalty in the banking sector. Most of the literature to reviews referred in the paper reveals that as compared to public sector, private sector bank customers' level of satisfaction is comparatively more in India. Human element acts an important role in the perceived service quality as well as satisfaction. Public sector banks need to redefine the customer service parameter in order to compete with the nationalized private sector banks both in profitability and corporate image. This study is just a small step in understanding the multidimensional construct of service quality and its implications in a competitive environment. This paper attempts to extract few dimensions of service

quality as perceived by bank customers and compares with five major dimensions already extracted in the past literature.

Mohi Sangmi and Tabassum (2010)<sup>48</sup> focuses on Sound financial health of a bank which is the guarantee not only to its depositors but is equally significant for the shareholders, employees and whole economy as well. As a sequel to this maxim, efforts have been made from time to time, to measure the financial position of each bank and manage it efficiently and effectively. In this paper, an effort has been made to evaluate the financial performance of the two major banks operating in northern India .This evaluation has been done by using CAMEL Parameters, the latest model of financial analysis. And using statistical tools such as mean, and standard deviation through this model, it is highlighted that the position of the banks under study is sound and satisfactory so far as their capital adequacy, asset quality, management capability and liquidity are concerned.

Rahmath Safeena (2010)<sup>49</sup> throws the idea that Information technology is considered as the key driver for the changes taking place around the world by the banks. The transformation from the traditional banking to e-banking has been a 'leap' change. The evolution of e-banking started from the use of Automatic Teller Machines (ATMs) and telephone banking (e -banking), direct bill payment, electronic fund transfer and the revolutionary online banking. This study determines the consumer's perspective on internet banking adoption.

Saroj (2010)<sup>50</sup> introduces that internet banking is a form of self service technology. The number of internet users has increased dramatically, but most of them are reluctant to provide sensitive personal information to websites because they do not trust e-commerce security. This paper investigates the factors which are affecting the acceptance of e-banking services among adult customers and also indicates the level of concern regarding security and privacy issues in the Indian context. Primary data were collected from 200 respondents, above the age of 35, through a structured questionnaire.

Statistical analysis and descriptive statistics were used to explain demographic profile of respondents and also Factor and Regression analyses were used to know trend of internet use and factors affecting e-banking services among adult customer in India. The finding depicts many factors like security & privacy, trust, familiarity, of e-banking services among Indian customers. The finding shows that in spite of their security and privacy concern, adult customers are willing to adopt online banking if banks provide them necessary guidance. Based on the results of the current study, Bank's managers would segment the market on the basis of age group and take their opinion and will provide them necessary guidance regarding the use of online banking.

Suman Tandon (2010)<sup>51</sup> Attempts to analyze the financial performance of public sector banks in India. Public sector banks form major part of total banking system in India. So there is a need to evaluate the performance of these banks. The study is based upon data covering the period from 1997-2007. For analyzing the performance Compound Annual Growth rate and Coefficient of Variation of advances, deposits, total assets, return on assets, and return on equity and spread ratio are calculated. Decline in the growth of nonperforming assets ratio is also considered for this evaluation. It is concluded that the CAGR of various variables have shown variations from bank to bank. State Bank of Indore has shown maximum CAGR in the case of total advances, total deposits and total assets. Punjab & Sind Bank has shown the least growth of deposits and advances and State Bank of India has the least growth of deposits. CAGR of return on equity and return on assets was at peak for United Bank of India whereas Dena Bank, Punjab & Sind Bank and Indian Bank have shown negative trend in these ratios. Decline of NPA's ratio was highest in the case of State Bank of Dena bank.

Sunita Sukhija (2010)<sup>52</sup> explains that the banking sector is the most dominant sector of the financial system in India, and with good valuations and increasing profits, the sector has been among the top performers in the markets. Undoubtedly, being tech-savvy and full of expertise, private banks have played a major role in the development of Indian banking industry.

In the process they have jolted public sector banks out of complacency and forced them to become more competitive. At present, Private Banks in India includes leading banks like ICICI Banks, ING Vysya Bank, Kotak Mahindra Bank, SBI Commercial and International Bank. Private Banks such as HDFC Bank and ICICI Bank are posting a rapid increase in their asset base every year as compared to public sector banks. The objective of the present paper is to analyze the financial position of the private sector banks. The analysis reveals that HDFC is the most efficient bank in terms of generating earning per share. KM B has higher P/B Ratio and it shows that the higher the premium the market is willing to pay for the company above its hard assets.

Vikas Choudhary (2010)<sup>53</sup> attempts to analyze the financial performance of public sector banks in India. Public sector banks form major part of total banking system in India and so there is a need to evaluate the performance of these banks. The study is based upon secondary data covering the period from 1997-2007. For analyzing the performance Compound Annual Growth rate and Coefficient of Variation of advances, deposits, total assets, return on assets, and return on equity and spread ratio are calculated. Decline in the growth of non-performing assets ratio is also considered for this evaluation. It is concluded that the CAGR of various variables have shown variations from bank to bank. State Bank of Indore has shown maximum CAGR in case of total advances, total deposits and total assets. Punjab & Sind Bank has shown the least growth of deposits and advances and State Bank of India has the least growth of deposits. CAGR of return on equity and return on assets was at peak for United Bank of India whereas Dena Bank, Punjab & Sind Bank and Indian Bank have shown negative trend in these ratios. Decline of NPA's ratio was the highest in the case of State Bank of Hyderabad and least in case of Dena Bank.

Tabassum Nazir (2010)<sup>54</sup> reveals that sound financial health of a bank is the guarantee not only to its depositors but is equally significant for the shareholders, employees and whole economy as well. As a sequel to this maxim, efforts have been made from time to time, to measure the financial position of each bank and manage it efficiently and effectively.

In this paper, an effort has been made to evaluate the financial performance of the two major banks operating in northern India. This evaluation has been done by using CAMEL Parameters, the latest model of financial analysis. Through this model, it is highlighted that the position of the banks under study is sound and satisfactory so far as their capital adequacy, asset quality, management capability and liquidity are concerned.

Uma Sankar (2010)<sup>55</sup> states that the success or failure of a business depends on that of customer relationship it practices. In the modern world of competition, growing consumerism, and information explosion, the one single element that stands out as the factor of success is the customer satisfaction. As electronic banking becomes more prevalent, now-a-days customers are evaluating banks based more on their —high-touch— factors than on their —high-tech— factors in most of the developing economy like India. At this backdrop, the major problem before the commercial banks, more particularly the public sector banks in India which have been operating in a sheltered regime after nationalization, is their long-run survival and forging way ahead by retaining their valued customers. The current research paper attempts to make a comparative study of the perceptions of bankers relating to the service quality and the level of customer satisfaction of the offers.

Alsi Mermod (2011)<sup>56</sup> discusses that the advent and expansion of globalization and the development of new technologies forced the banks to launch new channels to gain competitive advantage, reduce their costs, improve their financial services, enlarge their customer databases, progress their financial positions through innovative products and boost their general customer loyalty. Today, banks are switching to multi-channel distribution of financial services through internet. This paper tries to assess electronic banking in terms of a multi-channel distribution technique. The objective of this research is to examine the progression of Internet- banking in an emerging market. This is done through a survey among the online customers of banks and the proposition of strategies to control and fight against the risky issues associated with electronic banking (e-banking) activities. The usage percentage of online banking, the awareness of customers about the

online services and their expectations from online banking activities in city are evaluated through a survey and in depth interviews with online customers.

Amtul Fatima (2011)<sup>57</sup> posits that the providers of Internet banking services must be more responsive towards security requirements. While there is no doubt that Internet banking transaction should have layered protection against security threats, the providers should approach security considerations as part of their service offerings. Biometric based authentication and identification systems are the new solutions to address the issues of security and privacy. Using biometrics for identification restricts individuals from access to physical spaces and electronic services an effective authentication method should have customer acceptance, scalability to accommodate growth, and interoperability with existing systems and future plans. In this study, the security threats in Internet banking, its solutions in biometrics and its acceptance in the consumer market are studied using descriptive and exploratory research. The methods of descriptive research are used to obtain information concerning the major security issues in e-Banking.

Joshua (2011)<sup>58</sup> determines that the major banks in India are increasingly providing services through electronic channels such as ATMs, internet banking, e- banking and mobile banking. The paper is an attempt to examine the various usage patterns by customers of these technology enabled services. A survey research is conducted among the customers of some of the leading banks in India who are residing in the selected metro and urban banked centers in India. The findings show that though ATMs have been widely adopted, the level of adoption of other electronic banking means like internet banking, e-banking and mobile banking despite their potential are yet to pick in a big way. The usage patterns revealed through this study has several pointers to bank managements in India.

Kamini Singh (2011)<sup>59</sup> focuses on the Innovative services provided by the banks as mobile banking, phone banking, card banking, internet banking and inter-branch banking. The study analyzes the satisfaction level, usage period and user rate of account holders while using these innovative banking services.

The study also focuses on the inter relationship between the groups and within the groups. The broad objective of the study has, therefore, been to assess and analyze the degree of goodness and satisfaction of innovated banking service among the account holders; to analyze the existing differentials in levels of innovative banking services (phone banking, mobile banking, card banking, and internet banking and inter branch banking) provided by public and the private sector banks; to analyze the various factors considered while choosing the bank.

Karunanithi (2011)<sup>60</sup> remarks that every commercial bank should prepare the financial statements such as profit and loss account and balance sheet for the appraisal of operating efficiency of the bank during the period between 2010-2011.. In order to ascertain the financial soundness of the bank, ratio analysis has been made. It is yardstick to measure the financial position and performance of the bank. Normally the ratio are expressed in times and percentage. and selected parameters such as activity ratio, fixed asset turnover ratio, current ratio, advance to capital employed ratio, liquidity ratio, working capital turnover ratio, Non performing ratio, fixed asset ratio, debt equity ratio etc. Finally in this paper the financial performance of Karur Vysya Bank has shown a satisfactory level of the above mentioned period and the bank planned to add another 50 branches by the end of the financial year 2010-2011. The bank has been conducting its affairs meticulously to conform to all the prudential norms and exacting statutory regulations. It has consistently maintained strong fundamentals with a higher percentage of capital adequacy ratio then mandated by the RBI. It has also been generating profits and rewarding its stakeholders with handsome dividends since inception.

Kumara Charyulu (2011)<sup>61</sup> determines that one of the major objectives of Indian banking sector reforms was to encourage operational self-sufficiency, flexibility and competition in the system and to increase the banking standards in India to the international best practices. The second phase of reforms began in 1997 with aim to reorganization measures, human capital development, technological up-gradation, structural development which helped them for achieving universal benchmarks in terms of prudential norms and pre-eminent practices.

This paper seeks to determine the impact of various market and regulatory initiatives on the efficiency improvements of Indian banks. The efficiency of a firm is measured in terms of its relative performance that is, efficiency of a firm relative to the efficiencies of firms in a sample. Data Envelopment Analysis (DEA) has been used to identify banks that are on the output frontier given the various inputs at their disposal. The present study is confined only to the Constant-Return-to-Scale (CRS) assumption of decision making units (DMUs). Variable returns to scale (VRS) assumption for estimating the efficiency was not attempted. It was found from the results that national banks, new private banks and foreign banks showed high efficiency over a period time than remaining banks.

Mohammad Sham (2011)<sup>62</sup> aims to analyze of personal installment loan services between a local and foreign commercial bank during 1999 - 2003. The study revealed that personal installment loan services have been popularizing among the customers of medium-low income levels in the society. It is demonstrated that the foreign sample bank is providing better services as compared to the local sample bank as regards personal installment loan facilities, terms and conditions, fees, target market and customized products. It is observed that foreign commercial banks are more dynamic, more technological oriented and aggressive customer service than the local commercial bank. Moreover, foreign banks are more technological than the local banks in the context of designing the personal loan features. Finally, the study highlights the major components of personal installment loan system of total disbursed amount, total outstanding amount and total customer achieved.

Monika Sharma (2011)<sup>63</sup> introduces that the economic reforms in India started in the early nineties, but their outcome is visible now. Major changes took place in the functioning of Banks in India only after liberalization, globalization and privatization. It has become very mandatory to study and to make a comparative analysis of the services of Public sector Banks and Private Sector banks. Increased competition, new information technologies and thereby declining processing costs, the erosion of product and geographic boundaries, and less restrictive governmental regulations have all played a major role for Public Sector Banks in India to forcefully compete with Private and Foreign Banks.



This paper is an attempt to analyze how efficiently Public and Private sector banks have been managing NPA. It is right time to take suitable and stringent measures to get rid of NPA problem. An efficient management information system should be developed. The bank staff involved in sanctioning the advances should be trained about the proper documentation and charge of securities and motivated to take measures in preventing advances turning into NPA. Public banks must pay attention to their functioning when competing with private banks. Banks should be well versed in the proper selection of borrower/project and in analyzing the financial statement.

Muhammed (2011)<sup>64</sup> discusses research on the acceptance behavior of technology is sizeable, yet it is relatively heterogeneous and fragmented in the context of developing economies like Jordan. The paper tries to offer insights about two critical factors in acceptance behavior of Jordanian customers, namely, security and trust. This article puts together an integrated conceptual model for acceptance behavior of Jordanian Corporate customers that includes these two critical issues. Hypotheses are developed from extant literature and these indicate possible associations among the constructs of the model. Based on input received from 353 corporate customers, the proposed model is empirically tested using structural equation modeling. Of the hypothesized associations examined, five were found to be statistically significant and in the right direction. The results confirm most of the findings of the previous research on the subject, while some fresh insights on the interrelationships of the constructs used are also revealed. The results of the study have serious implications for bankers, corporate online users, and business educators, who may use the empirically tested model as a diagnostic and monitoring tool in explaining the acceptance behavior of Jordanian business users of online banking. This paper concludes that security and trust should be integrated to perceived usefulness and perceived ease of use in explaining acceptance behavior of corporate customers.

Nidhi Sharma (2011)<sup>65</sup> reveals that governance provides a roadmap for a corporation helping the leaders of a company make decision based on the rules of law, benefits to stakeholders and practical process.

It allows a company to set realistic goals and methodologies for attaining these goals. The fundamental objective of corporate governance is to enhance shareholders' value and protect the interests of other stakeholders by improving the corporate performance and accountability. Hence, corporate governance based largely on trust – the trust by stakeholders that revenue will be fairly shared and that those directly involved in running of the company. Finally, this paper reveals that governance is the acceptance by management of the inalienable rights of shareholders as the true owners of their corporation and to enhance investors' value and to protect their interest through improving the corporate performance and accountability. Investors are looking for newer areas and avenues for investing their funds with the safety of their funds rather than high returns.

Paramjeet Singh and Vohra (2011)<sup>66</sup> states that banks are the main participants of the Indian financial system, because they play a vital role in the economy of a country. India is one of the most preferred banking destinations as its economy is not only growing at +8 per cent annually, but it is also going through a transformation to the next level of maturity. After liberalization the banking sector underwent major changes and it has been totally changed after economic reforms. Always the public banking industries were dominated by public sector banks because they play an important role in development of Indian economy. But now the situations have been changed after arrival of new generation banks that are known for technical and financial innovation and professional management has gained a reasonable position in the banking sector. The main idea of this research article is to make an assessment of the financial performance of the Indian public sector banks and private sector banks. This paper provides empirical evidence of the impact of financial liberalization and global recession on the performance of the Indian commercial banks. The present study compares the performance of public sector banks with private banks under various accounting and statistical framework. The data used for the study were the audited financial results of a sample of 3 public banks and 3 private banks over the last three financial years.

Syed Ibrahim (2011)<sup>67</sup> says that the banking sector is the core segment of the Indian financial system which decides the progress of the country. Banks play an important role in the mobilization and allocation of resources in an economy. The sound financial position of a bank is the guarantee not only to its depositors but equally important for the whole economy of the nation. Several committees have emphasized the need to improve the performance of the commercial banks. In India, the priorities in banking operations underwent far reaching changes since the banking sector reforms have been set in motion. In this paper, an effort has been made to evaluate the operational performance of the commercial banks in India with especial reference to the Scheduled Commercial Banks since 2000. The study is diagnostic and exploratory in nature and makes use of secondary data. The study finds and concludes that the Scheduled Commercial Banks in India have significantly improved their operational performance.

Surabhi Singh (2011)<sup>68</sup> attempt that the bank system is facing challenges with stiff competition and advancement of technology. It becomes imperative for service providers to meet or exceed the target customers' satisfaction with the quality of services expected by them. Hence, the present research attempted to study customers' perception of the quality of services of both transactions based and IT enabled in terms of its constituent factors in public sector, private sectors and foreign banks.

Also through the present study, we would gauge the extent of IT adoption in public sector, private sector and foreign banks in this e-age. The present investigation was planned with the objective to assess the extent of the use of services especially the IT enabled services in these banks and to analyze the constituent factors affecting customer satisfaction with the quality of services. The present study was conducted in public sector, private sector and foreign banks of Delhi. Multistage random sampling was used for the selection of samples. The study was conducted in five zones (East, West, North, South, and Central) of Delhi. One branch of the above banks in any zone of Delhi was selected randomly. While selecting the branch, care was taken to see that branch should provide at least five IT enabled services.

This step was followed to have Intra Bank comparison. The study shows that the customers of nationalized banks were not satisfied with the employee behavior and infrastructure, while respondents of private and foreign banks were not satisfied with high charges, accessibility and communication.

Uppal (2011)<sup>69</sup> analyzes the performance of major banks in terms of productivity and profitability in the pre and post e-banking period. Under the regime of banking sector reforms, IT Act of 1999 gave new dimensions to the Indian banking sector. IT has created transformation in banking structure, business process, work culture and human resource development. It has affected the productivity, profitability and efficiency of the banks to a large extent. The paper concludes that the performance of all the banks under study is much better in post-e-banking period further; foreign banks are at the top position, whereas the performance of the public sector banks is comparatively very poor. The paper suggests some measures to tackle the challenges faced by the banks particularly public sector banks. At the end, paper suggests how public sector banks can convert the emerging challenges into opportunities.

Uppal (2011)<sup>70</sup> exhibits the growth of information technology in various bank groups. In our country in 2009, 79 percent branches were under core banking. The maximum technology is taking place in new generation private sector banks as well as foreign banks. 43.5 percent are off site ATMs in our country. Public sector banks have more on site ATMs whereas new private sector banks and foreign banks have more off site ATMs. The paper also suggests some strategies to enhance e delivery channels in banks particularly in public sector banks.

Bikramjit Singh (2012)<sup>71</sup> states that the banking system of India should not only be hassle free but it should be able to meet new challenges posed by the technology and any other external and internal factors. The government's regular policy for the Indian banks since 1969 has paid rich dividends with the nationalization of 14 major private banks of India.

For the purpose of study, two banks have been taken one from public sector bank and one from private sector bank that is HDFC and SBOP. The purpose of study is to examine the profitability aspects of both the banks and also compare the profitability of both the banks. For the purpose of the study secondary data have been taken from the period 2004-05 to 2009-10. The study found that the profitability of HDFC bank was higher as compared to SBOP bank.

Donald (2012)<sup>72</sup> says that while there is a very large literature on the determinants of default on various debt instruments, relatively little is known about the factors which influence recoveries on bank loans in the default state. The issue has taken on heightened importance since Basel II permits banks to determine required capital holdings by using model-based estimates of —loss given default which depends on the recovery rate. We measure recoveries using the —Ultimate Recovery Database supplied by Moody's and model the recovery rate as a function of variables reflecting loan and borrower characteristics, industry and macroeconomic conditions, and several recovery process variables. We find that loan characteristics, such as the presence of certain types of collateral, are significant determinants of recovery rates, whereas many of the borrower characteristics before default generally are not. Industry and macroeconomic conditions also are relevant, as are certain process factors such as prepackaged bankruptcies. Since trading prices on loans approximately 30 days after default are often used by practitioners (and in some academic studies) as proxies for the recovery rate, we examine whether this proxy provides a rational estimate of actual recoveries. We find that the process that drives the 30-day trading price after default differs significantly from the actual settlement recovery process.

Karim khalilli (2012)<sup>73</sup> says that the goal of present research is to survey the relationship between electronic services quality and users' electronic satisfaction of central branch of Indian Bank. This study is survey, analytical and applied research. For this purpose, electronic service quality has been defined in 6 dimensions: Efficiency Dimension, reliance

capability, Command Supply, Personal Secret Protection, Compensation, and Communication. In this way 9 hypotheses have been set. The Statistical survey of this research is customers of central branch of Indian bank. The size of statistical sample has been estimated 380 people by Cochran formula, and has been selected by using time random sampling method. Information gathering instrument in this research is researcher made questionnaire. It has been distributed among statistical sample after assessing validity and reliability of questionnaire, Gathered data, summarized and categorized using descriptive statistical method. Pearson test and Freedman test have been used to test research hypothesis. The result of research indicates that there is relationship between electronic services quality and its seven dimensions and users' electronic satisfaction of central branch of Indian Bank. And also ranking of the relationship between dimensions of electronic service's quality and electronic satisfaction of bank users has been presented.

Mahtab Alam (2012)<sup>74</sup> attempts to find out the customer satisfaction of the internet banking users which leads to make more loyal customers and hence loyalty leads to attracting more customers, expansion of business and increase in net profit. The finding of the study shows that there is a significant variation in the level of satisfaction among the internet banking users. The satisfaction of the Internet banking users depends upon Reliability, Responsiveness, Security and Ease of use and Tangibles.

Senthil Balasubramanian (2013)<sup>75</sup> says that channel of distribution like Automatic Teller machines (ATM), internet banking, and mobile banking. This enables the customer to avail the banking services at anytime and anywhere. These technological interfaces are known as self service technologies (SSTs). Customers availing banking services through these SSTs get more benefits in terms of time, cost and energy. Despite these benefits the customer trial, adoption and repeat usage of SSTs vary among banking customers. Although the kinds of service one can avail from these SST are similar, the patronage among the SSTs differs. The SST channel choice could be attributed to various factors viz., Nature of service to be availed or purpose, Perceived risk, Requirements and Benefits.

When it comes to predicting customer priority among alternatives, Analytical hierarchy process (AHP) has been proved as an effective technique. This paper explores the factors influencing customer choice of SSTs by employing AHP technique.

Nishit V.Davda<sup>76</sup>, in her study “A Review Article on New Private Sector Banks in India: Challenges and Opportunities”, *Indian Journal of Research*, Vol. 3, No. 12, pp. 93-94, 2014. stated that usually customers have a higher trust factor in private sector banks in comparison with public sector banks in context of performance and other parameters.

C. Kandasamy and C. Indirani, “A Study on Financial Performance of New Generation Private Sector Commercial Banks in India”, *International Journal of Science and Research*, Vol. 4, No. 2, pp. 1758-1763, 2015. In their study stated that the new generation banks are in a position to increase their possessions and income. They also did raise a concern on the performance of Public sector banks which is hereby giving a rise for competition of New Generation Banks.

Vinisha<sup>77</sup>, “Financial Performance of New Generation Banks in India: An Interbank Analysis”, *Business Sciences International Research Journal*, Vol. 4, No. 1, pp. 69-71, 2016 studies about the coming into existence of New Generation banks, the need and the role of the same in the current scenario. The study also compares the financial performance of the New generation banks with the established Public sector banks and the impact of the same in the banking industry.

Habiba Abbasi<sup>78</sup>, “A Comparative Study of Public and Private Sector Banks in India”, *International Journal on Recent and Innovative Trends in Computing and Communication*, Vol. 5, No. 5, pp. 361-370, 2017-New private banking banks are the fastest growing sector in India. The efficiency and effectiveness of these banks have repeatedly improved. Exploring this field is not an easy task. Following the national banking system adopted in 1969, the number of private banking companies increased. And thanks to the presence of

new private sector banks and foreign banks have made the market more efficient and improved the quality of services over the past decade in India. These banks have established themselves in the new and latest system with the highest level of service and excellent performance.

Priyanka Jha, “Analyzing Financial Performance (2011- 2018) of Public Sector Banks (PNB) and Private Sector Banks (ICICI) in India”, ICTACT Journal on Management Studies, Vol. 4, No. 3, 793-799, 2018<sup>79</sup>. Bank customers have great faith in the public banks compared to private bank banks. People are very fond of PNB bank for its need for loans and development compared ICICI Bank. However, PNB bank has low efficiency compared to ICICI bank. If there is a dividend payment rate, Debt Equity and Interest Rate Used for Interest, ICICI.The bank did very well compared to PNB bank

M Selvakumar et al. (2019)<sup>80</sup> : Performance Analysis Of New Generation Private Sector Banks In India studied the financial parameters of several new generation banks the study is based on a model developed by the author who further tests the same through Friedsmann test. The study aims to find the best performing New Generation Bank.

Dr. C. Paramasivam (2020)<sup>81</sup> A Study On Performance Of Private Sector Banks In India stated in his study that The banking sector is one of the most important parts of the economic development of a country that provides systematic cash flow from one hand to the other. She is well organized and the regulated banking system facilitates the effective and significant growth of the social economy conditions in the world. Banking is another driver economy definition country. It provides the funding needed for families and businesses to invest in the future. As a result the existing papers mainly discuss the operation of commercial banks in India about public, private companies and foreign banks



**CHAPTER III**  
**RESEARCH METHODOLOGY**

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### **RESEARCH METHODOLOGY**

This chapter provides a brief discussion of data collection process, from the field and other sources, for our analysis. It then describes different research methodologies to analyze the performance of New Generation Banks and the implication of the Financial & Non Financial Parameters . This chapter also discusses the research methodology for measuring the correlation between the Financial & Non Financial parameters and how they together impact the performance of the New Generation Banks..

With these objectives in particular, the discussion here has been structured in three broad sections.

In the first section (3.1) of this chapter, an attempt has been made to discuss the methods of data collection from the field and other sources.

In the second section (3.2) of this chapter, an attempt has been made to discuss the research methodology to measure the Financial & Non Financial performance of New Generation Banks

In the third section (3.3) of this chapter, an attempt has been made to discuss research methodology to measure Correlation of Financial & Non Financial Parameters impacting the overall performance of New Generation Banks.

#### **3.1 DATA COLLECTION PROCESS:-**

##### **3.1.1 RESEARCH DESIGN:-**

The study is both exploratory as well as descriptive in nature. Exploratory research has provided valuable insight into the complex scenario of understanding the factors effecting

the performance of the New Generation Banks and breaking the biases towards concluding that it is only the Financial parameter effecting the performance of New Generation Banks.

### **3.1.2 FIELD STUDY:-**

Field survey was conducted for the customers of New Generation Banks. The field study collected information from the respondents by using a predefined questionnaire.

### **3.1.3 DATA COLLECTION:-**

#### **3.1.3.1 PRIMARY DATA:-**

A detailed field survey was done. The respondents were interviewed using structured and unstructured questionnaire.

#### **3.1.3.2 SECONDARY DATA:-**

Secondary data were obtained from the published reports, internet, libraries, journals/magazines, and reports of certain government agencies, banks' annual reports and various reports of RBI, NSSO, NABARD, NAFSCOB,CEIC etc. Major part of the objectives are covered through the analysis of secondary data.

#### **3.1.3.3 DATA COLLECTION PERIOD:-**

Stakeholders' data were collected during the period 2010-2021 using structured questionnaire. And the responses were taken from different members/ non-members of different New Generation Banks for the above mentioned period. The first decade has been not fully incorporated in the study as two of the sample banks (Kotak Mahindra Bank & Yes Bank) were formed in the year 2003,hence to ensure a stable performance comparison, the period of study considered is from 2010-2021.

### 3.1.3.4 RESEARCH METHODOLOGY:-

A random sample survey method was used for collecting primary information (from members and non-members of New Generation Banks) to understand the impact of New Generation Banks on different performance parameters . Please refer annexure , for the set of questionnaire used for data collection.

### 3.1.3.5 SAMPLING TECHNIQUE:-

Multi stage sampling technique was followed for the study. In the first stage the numbers of sample New Generation were determined from the total population of customers of these New Generation Banks.

### 3.1.3.6 Sample size determination:-

In order to determine the sample size for our research analysis we applied the following formula. For the sample size n:

$$n = \frac{N \times X}{(N + X - 1)}$$
$$= \frac{5229 \times 384}{(5229 + 384 - 1)}$$
$$= 358$$

Where we determined the x value as,

$$X = \frac{Z^2 \times p \times (1-p)}{MOE^2}$$
$$= \frac{1.96^2 \times 0.50 \times (1-0.5)}{0.05^2} = 384$$

Where  $Z_{\alpha/2}$  is the critical value of the Normal distribution at  $\alpha/2$  (e.g. for a confidence level of 95%,  $\alpha$  is 0.05 and the critical value is 1.96), MOE (0.05) is the margin of error,  $p$  (0.50) is the sample proportion, and  $N$  is the population size. Here finite population Correction has been applied to the sample size.

### **3.2 DATA COLLECTION**

The data collection for the present study was entirely primary in nature. A total of 385 respondents were contacted from the field by applying random sampling process. A variety of statistical tools and techniques, including Chi-square test, Friedman Test, Balance Score Card & One way Annova Method.

### **3.3 NON-RESPONSE CHECKS**

As with any questionnaire based survey, non-response always exist. The most often cited reasons for non-response were respondents' reluctance to participate in the survey and enumerators' inability to gather replies in a reasonable amount of time. Therefore, both a field and data were used to check for non-response entries.

### **3.4 PILOT SURVEY AND SCALE REFINEMENT**

Researchers have advised doing a pilot survey prior to conducting a full assessment (Sekaran, 2003; Malhotra, 2008). The major objective of the pilot survey is to fine-tune and verify the normality of the measuring scales (Sekaran, 2003; Malhotra, 2008). To do this, it was decided to begin by generating data from a small sample. Thus, determining the sample size for the pilot survey was critical. In this regard, prior studies have advised that the sample size for a pilot research is to be between 25 to 100 respondents (Cooper & Schindler, 1998; Hair et al, 2010). Furthermore, it has been recommended that the subject to variable ratio for EFA use be at least 10:1 (Hair et al, 2010).

Therefore, 50 respondents were contacted for survey so that through their response pattern, any type of anomaly in the questionnaire can be adjudged. As the Cronbach's Alpha was found to be 0.939, which is more than 0.80 it is acceptable and considered good for social science research.

**Scale: ALL VARIABLES**

**Case Processing Summary**

		N	%
Cases	Valid	56	100.0
	Excluded <sup>a</sup>	0	.0
	Total	56	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.939	25

**3.5 RESEARCH MODEL:**

Since there had been no predefined study in the lines of the said objective of this study, it was essential to develop a acceptable model to satisfy the hypothesis and objectives of the study.

**3.5.1 OBJECTIVE OF THE STUDY:**

- To analyze the impact of Financial parameters on the performance of New Generation Banks
- To analyze the impact of Non Financial Parameters on the performance of New Generation Banks
- To understand the correlation between the Financial and Non Financial Factors effecting the performance of New Generation Banks
- To find out the most prominent Financial and Non Financial factors effecting the performance of New generation banks
- To study and understand the customer's perception about new generation banks.

To Validate the above mentioned objectives, the following hypothesis are formulated.

### **3.5.2 HYPOTHESIS FORMULATED:**

The study aims to conduct a research probe into the following:

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**H<sub>03</sub>**- There is no significant correlation of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

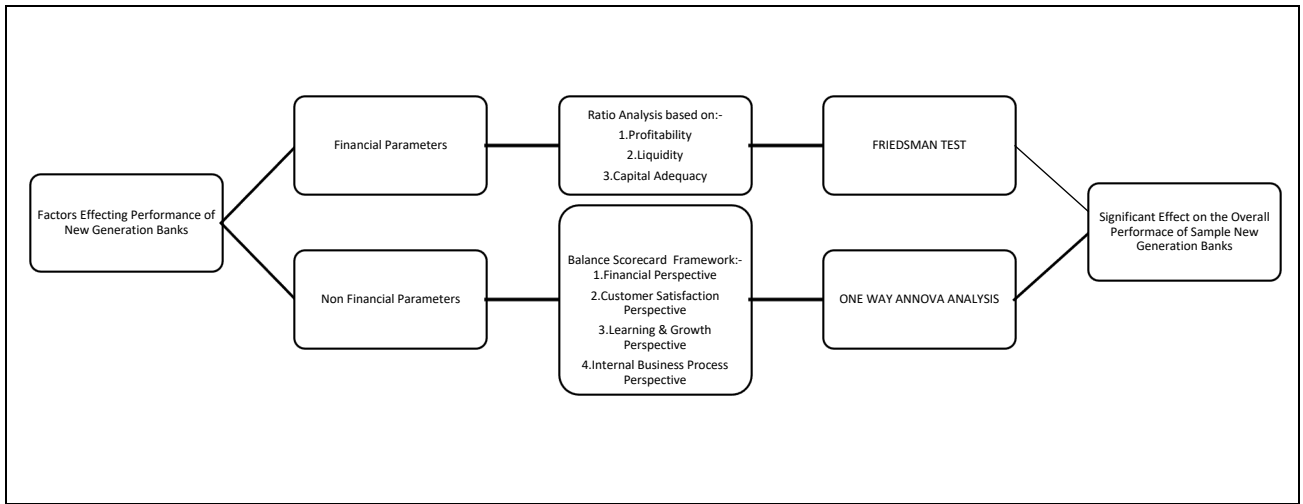
### **3.6 RESEARCH VARIABLES:**

Although the extensive literature review revealed various factors, only a few were found to be pertinent to the topic and were included for the current study. Many such demographic and psychographic variables have been examined, but the results are inconsistent. Various studies were analyzed to determine the factors effecting the overall performance of New Generation Banks but only studies relating to Financial Performance and Customer satisfaction were undertaken hereby putting a compulsion on the researcher to determine her own model for analysis. The design created to evaluate the current study takes into consideration both the financial and non financial parameters to derive at the conclusive result. To check the relativity of the Financial parameters a set of 15 ratios were considered ,on the categories of Profitability, Capital Adequacy & Liquidity. These 15 ratio's were further analyzed using Friedman test to evaluate the relatability of the parameters and overall objective of the study. To study the non financial parameters Balance Score card technique along with One Way Annova is used.

Following research model is framed to achieve the above mentioned objectives-

Fig 3.1

**Research Design to study the impact of Financial & Non Financial parameter’s impact on the Overall Performance of New Generation Banks.**



Source: Author’s Design

**3.6.1 RATIO ANALYSIS:**

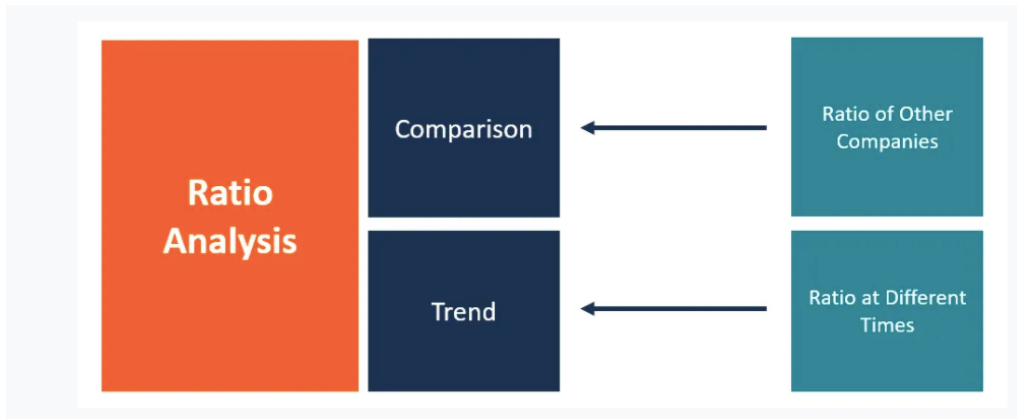
Ratio analysis refers to the analysis of various pieces of financial information in the financial statements of a business. They are mainly used by external analysts to determine various aspects of a business, such as its profitability, liquidity, and solvency.

Ratio Analysis is basically used to do a comparative study against either company’s own past record or with the competitor’s company to ensure that their performance parameters are properly benchmark



Fig 3.2

### Usage of Ratio Analysis



Source: [www.corporatefinanceinstitute.com](http://www.corporatefinanceinstitute.com)

## USES OF RATIO ANALYSIS

### 1. Comparisons

One of the uses of rating analysis is to compare a company's financial performance with similar firms in the industry to understand a company's position in the market. Finding financial ratings, such as Price / Profits, from well-known competitors and comparing them with company estimates can help managers identify market positions and assess its competitive advantages, strengths, and weaknesses. Managers can use the information to make decisions that aim to improve the company's position in the market.

### 2. Trend line

Companies can also use estimates to determine if there is a trend towards financial performance. Established companies collect data from financial statements during a large number of reporting periods. The acquired trend may be used to predict future financial performance guidance, and also identify any expected financial disturbances that cannot be predicted using one-time reporting rates.

### 3. Operational efficiency

Company executives may also use a financial analysis to determine the level of efficiency in asset and liability management. Proper use of assets such as cars, land, and buildings creates unnecessary costs that must be eliminated. Financial estimates can also help determine whether financial resources are overused or underused.

<b>RATIO</b>	<b>IMPACT ON THE ORGANISATION</b>
Credit Deposit Ratio	<ul style="list-style-type: none"> <li>• Low ratio indicates banks are not making full use of their resources.</li> <li>• Alternatively, a high ratio indicates more reliance in deposits for lending and likely pressure on resources.</li> </ul> <p>CD ratio helps in assessing a bank's liquidity and indicates its health.</p>
Net Profit Ratio	<ul style="list-style-type: none"> <li>• A low net profit ratio means that an organization uses an ineffective cost structure and/or poor pricing strategies.</li> <li>• A high net profit margin means that an organization is able to effectively control its costs and/or provide goods or services at a price significantly higher than its costs.</li> </ul>
Deposit to Total Asset Ratio	<p>This leverage ratio shows how a company has grown and acquired its asset as a function of time.</p> <ul style="list-style-type: none"> <li>• A ratio greater than 1 shows that a considerable portion of the assets is funded by debt. In other words, the company has more liabilities than assets. It also indicates that a company may be putting itself at risk of defaulting on its loans if interest rates were to rise suddenly.</li> <li>• A ratio below 0.5, meanwhile, indicates that a greater portion of a company's assets is funded by equity.</li> </ul>

Fixed Assets to total Assets Ratio	<p>It shows the extent to which the company funds are frozen in the form of fixed asset, such as property, plant and equipment.</p> <ul style="list-style-type: none"> <li>• A low ratio is indicative of greater solvency because the lower the ratio becomes; the more funds are available to meet current obligations.</li> <li>• The higher the ratio becomes, the lower the organization's solvency, since more funds are tied up with fixed assets.</li> </ul>
Investments to Advance Ratio	<ul style="list-style-type: none"> <li>• The yield on advances ratio gives the average lending rate of the portfolio.</li> <li>• High yield on advances is an indication that the entity is into financing riskier assets and may see asset quality issues.</li> <li>• It also indicates whether the pricing of the loan is in line with underlying risk.</li> </ul>
Return on Equity Ratio	<p>ROE measures a company's ability to generate profit for its equity shareholders. It tells us how the much the money the company earns on an investor's capital companies with consistent growth in ROE are preferable than uneven returns. The higher the ROE ratio, the higher the profitability.</p>
Interest Expense Ratio	<p>The Interest-Expense ratio intimates the amount of gross income that is being spent to pay the interest on borrowed money. A higher Interest-Expense ratio than indicates that the business is spending too much of its gross income paying interest on borrowed money.</p>
Return on Assets Ratio	<p>ROA measures the efficiency with which the management uses its assets to generate returns.</p> <ul style="list-style-type: none"> <li>• High returns suggests that the company is able to efficiently use its resources to maximize its profits.</li> <li>• On the other hand, low returns suggest inefficiency in the use of the company's assets to generate revenue.</li> </ul>

Profit Margin Ratio	<p>The profit margin ratio determines what percentage of a company's sales consists of net income. Put simply, it provides a measurement of how much profits are generated from a company's sales. This number is useful for determining how well an organization's finances are being managed. Companies strive for higher profit margin ratios which means that their profits will exceed their expenses.</p>
Equity Multiplier Ratio	<p>The equity multiplier is a ratio used to analyze a company's debt and equity financing strategy. A higher ratio means that more assets were funded by debt than by equity. In other words, investors funded fewer assets than by creditors.</p>
Asset Utilization Ratio	<p>The asset turnover ratio measures the value of a company's sales or <a href="#">revenues</a> relative to the value of its <a href="#">assets</a>. The asset turnover ratio can be used as an indicator of the efficiency with which a company is using its assets to generate revenue.</p> <ul style="list-style-type: none"> <li>• The higher the asset turnover ratio, the more efficient a company is at generating revenue from its assets.</li> <li>• Conversely, if a company has a low asset turnover ratio, it indicates it is not efficiently using its assets to generate sales.</li> </ul>
Non Interest Expense Ratio	<p>A noninterest expense is an operating expense of a bank or financial institution that is classified separately from interest expense and provision for credit losses.</p> <ul style="list-style-type: none"> <li>• when a bank reports a high overhead ratio for a long period, it means that it faces high operating costs, which may affect its reported earnings.</li> </ul>
Non Interest Income Ratio	<p>Non-interest income is bank and creditor income derived primarily from fees including deposit and transaction fees, insufficient funds (NSF) fees, annual fees, monthly account service charges, inactivity fees, check and deposit slip fees, and so on. Institutions charge fees that generate non-interest income</p>

	as a way of increasing revenue and ensuring liquidity in the event of increased default rates.
Interest Income Ratio	Net interest income equals interest income minus interest expense and plays a crucial role in determining how profitable a bank is in any period. Variations in net interest income are also used to measure how successful a bank has been in managing its interest rate risk.

Source: Wikipedia

### 3.6.3 FRIEDMAN TEST-

Friedman's test is a non-parametric statistical test developed by Milton Friedman. Similar to the repeated parametric measures of ANOVA, it is used to find treatment differences in all multiple experimental attempts. The process involves measuring each row (or block) together, and then considering the level values in columns. It works to complete block designs, so it is a special case for Durbin testing.

Examples of classic uses are:

- n wines judge each measure k different wines. Are any k wines ranked higher or lower continuously than others?
- Heaters individually use k welding torches, and the following welds are rated according to quality. Do any of the torches k produce the best or worst heaters?

The Friedman test is used for repeated analysis of measurement measures for varying levels. In its application of standards it is similar to the Kruskal-Wallis analysis of one method of standard deviation.

Friedman's experiment is widely supported by many mathematical software packages.

To Analyze the Non Financial Parameter Balance Scorecard Frame work was implemented:

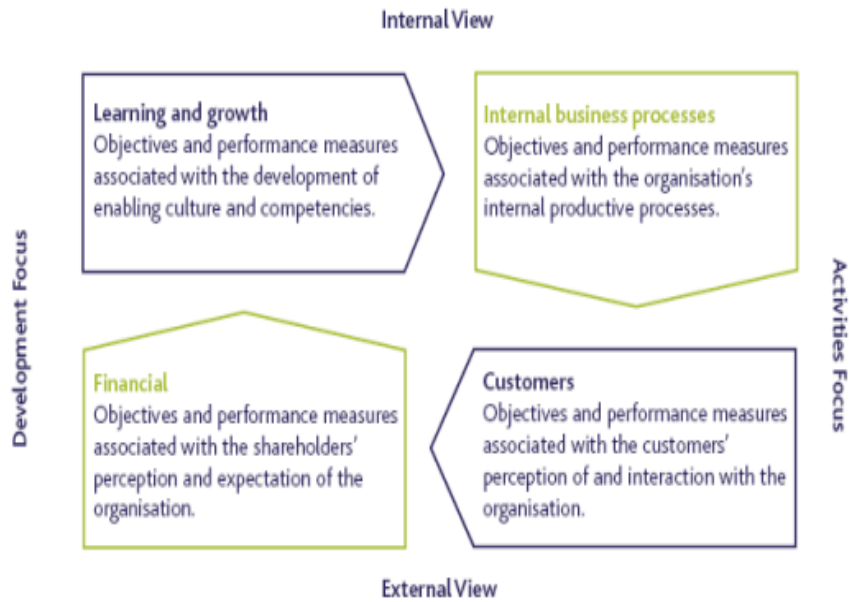
### **3.6.4 BALANCE SCORE CARD**

The basic idea of the Balanced Scorecard (BSC) is to focus the organization on the performance measures and implement the current strategy. The BSC incorporates measures ranging from finance, customer, internal processes and learning and growth ideas. The aim is to avoid focusing only on short-term financial means. The BSC enables managers to focus their efforts and understand the linkages between the four key areas. The BSC approach was developed by Kaplan and Norton (1992, 1996) to integrate financial management and non-financial management methods. It is used to achieve the purpose and objectives of an organization's business strategy. The purpose of the BSC is to enable effective monitoring and control of the business. In essence, the BSC is a management system that allows an organization to identify and articulate its vision and strategies, and translate them into action. Provides feedback on both internal business processes and external outcomes to improve continuous strategic performance and outcomes.

Balance points quadrantes The balance points card contains four related quadrans, each containing estimates of a different point of view. These ideas are: • finance • customer • internal processes • learning and growth. These four ideas are designed to integrate all organizational activities, internally and externally, current and future.

Fig 3.3

Balance Score Card Framework



Source: KPMG study

**Financial perspective**

Financial vision is a key element of any performance measurement system because the financial performance of an organization is fundamental to its success. Measures that reflect financial performance include the amount of debtors, debtors, cash flow, interest rate and return on investment. The biggest problems with financial measures are as follows.

- Based on previous data. Financial measures show what happened but may not tell us what is happening right now. They are not really a good indicator of future performance.
- They are short-lived and do not focus on the organization's long-term financial plans.

### **Customer Satisfaction perspective -**

These are the steps that have a direct impact on customers. They may include the time taken to process the call, the number of customer complaints, customer test results or the number of repeat customers. Customer and customer satisfaction have become increasingly important in the business. Businesses realize that if customers are not satisfied, they will find other suppliers to meet their needs

### **Business process perspective-**

These are important business process estimates, such as the time taken in production, processing costs or the processing time of an order. These internal business-focused measures allow an organization to evaluate how well a business is performing and whether its products and services meet customer needs.

### **Learning and Growth Perspective-**

These are the steps that highlight the development and learning ability of an organization. It may include the number of training days, the number of trained workers, or the total hours spent in training staff. This vision combines employee training and attitudes with organizational culture related to individual and corporate self-development. This quadrant sees that in an organization of experienced workers, people are a great resource. Kaplan and Norton focus on the fact that 'learning' is more than 'training'.

The measures used in the BSC are consistent and firm. The BSC should be considered more than just a set of financial and non-financial indicators. Instead it monitors the underlying cause and operates relationships that lead to better financial benefits. This is done by ensuring that the vertical vector passes through the four BSC views, as shown in Figure 4.3 above, based on Kaplan and Norton (1996, p.31).



BSC development steps The steps of the BSC implementation are:

1. Find the key outcomes that are important for the success of the organization.
2. Identify the processes that lead to these results.
3. Develop key performance indicators for these processes.
4. Develop reliable data capture systems and ratings.
5. Develop a mechanism to report this to the appropriate management and staff.
6. Make improvement plans to ensure that performance improves.

### Application

The BSC can be used to facilitate the implementation of an organizational strategy. The process of developing steps will let managers know more about how their work fits into a business strategy. Managers should receive regular reports of their performance against BSC measures that are consistent with their work environment. Strategic level managers should have general information about the overall performance of the organization in BSC measures. This is to monitor whether the chosen strategy is being implemented and to take appropriate action if necessary. External stakeholders can also access BSC strategies to help them fully understand the organization's objectives.

### Benefits

The main benefits of BSC are described below.

- It avoids management's reliance on temporary or incomplete financial measures. It ensures that senior management has a balanced view of organizational performance.
- Utilizing the BSC can help 'reduce' the business strategy in segmentation and operations by forcing managers to develop successful strategies related to business objectives. The high level strategy and actions of the management level are clearly linked and well-focused.

- It can help participants to evaluate the organization if the steps are outsourced.
- The organization's (and the organization's own) reporting system is more likely to focus on staying competitive for longer and recognize the importance of participants.

### 3.6.5 ANNOVA ANALYSIS

Variation analysis (ANOVA) is a mathematical analysis tool that distinguishes the visual variations found within the data set into two parts: structural features and random features. Organized objects have a statistical effect on a given data set, whereas random features do not. Analysts used the ANOVA test to determine the effect of independent variability on the variance dependent on the retrospective study. The t and z test methods developed in the 20th century were used for mathematical analysis until 1918, when Ronald Fisher created a variance analysis method.<sup>12</sup> ANOVA is also called Fisher's analysis of variance, and is an extension of t - and z-test. The term came to prominence in 1925, after Fisher's book, "Statistical Methods for Research Workers."

$$F = MST / MSE$$

where:

F = ANOVA coefficient

MST = Total sum squared as a result of treatment

MSE = Total sum of squares due to error

ANOVA testing is the first step in analyzing features that affect a specific data set. Once the test is complete, the analyst performs further tests on methodical features that have a measurable impact on the data set. The analyst uses the ANOVA test results in test f to generate additional data pertaining to the proposed retrospective models.

The ANOVA test allows comparisons of more than two groups at once to determine if a relationship exists between them. The effect of the ANOVA formula, the F-ratio (also called the F-ratio), allows multiple data groups analysis to determine differences between samples and between samples. If there is no real difference between the tested groups, called the null hypothesis, the result of ANOVA's F-ratio results will be closer to 1. The distribution of all possible values of the F numbers is the distribution of F. This is actually a group of distribution functions, with two feature numbers, called free degree degrees and free denominator degrees.

#### ANOVA One Way One Compared to ANOVA Two Way

There are two main types of ANOVA: one-way (or unidirectional) and two-way. There is also a variety of ANOVA. For example, MANOVA (multivariate ANOVA) differs from ANOVA as pre-test for multiple dependent variables at one time while the last test differs only one dependent time. One or two methods refer to the number of independent variables in your analysis of variance tests. The one-way ANOVA evaluates the effect of a single factor on the variance of a single response. Determines whether all samples are the same. One-way ANOVA is used to determine whether there are statistically significant differences between the methods of three or more independent (unrelated) groups.

Two-way ANOVA is an ANOVA one-way extension. In one way, you have one independent variable that affects dependent variables. With ANOVA for two methods, there are two independent ones. For example, two-way ANOVA allows a company to compare job productivity based on two different independent factors, such as salary and a set of skills. It is used to view the interaction between two objects and assesses the effect of two factors simultaneously.

### **3.7 LIMITATIONS OF THE STUDY-**

1. The study covers only 4 New Generation Banks. So the results generated may not be applicable for other New Generation Banks . The study may not reflect the performance of other banks; hence the results of the study may not applicable to the result of the places.
2. The primary data was collected from the respondents throughout the country.
3. The employee satisfaction and customer perception is based on the varied responses received Hence it cannot be taken in as a conclusive perception about the New Generation Bank.

### **3.8 RESEARCH CONTRIBUTION-**

We have applied, a model to combine and study the impact of financial and non financial parameters through previous pre established technique, to identify those factors which prominently effect the overall performance of the New Generation Bank.

From our Analysis it can be deduced that the Performance Analysis of New Generation banks should not be only restricted to Financial Aspects but a holistic approach should be taken as a decisive factor to derive at the final conclusion.

## **CHAPTER IV**

# **DATA ANALYSIS & INTERPRETATION**

## CHAPTER IV

### DATA ANALYSIS & INTERPRETATION

In the previous chapter , the research pathway and methodology used for the present study had been discussed .The ultimate priority of the current chapter is to contour the analysis methods and to carve out the findings from the study. A brief demographic profile of the respondents is presented at the beginning of the chapter to cast a light on the background of the respondents involved in the study and the implication of the same. Together, Descriptive & Inferential statistics had been applied to the available dataset. Analysis tools like frequency ,percent ,mean & standard deviation were used from the descriptive statistics tools whereas Chi square test was used as inferential statistics tool to investigate the demographic data. Usage of pictorial depictions have been used where ever possible. Conclusions for the said chapters were drawn using Balance Score Card Technique ,Friedsman Non Parametric Test & SPSS -21 .

#### 4.1 Demographic Analysis of the Respondents

Demographic information refers to data about features or characteristics that define a person or population. Obtaining demographic information is important and beneficial in helping researchers better understand the number of people interested in their research. The demographic profile of the respondents scrutinized in this study were gender, age, educational qualification, and income. The general demographic profile of the respondents is shown below:-

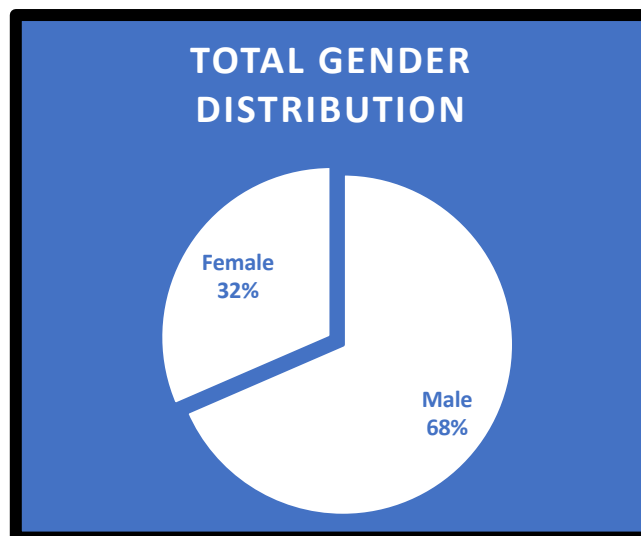
#### 4.1.1 Gender:

Enav Friedmann<sup>1</sup>, Oded Lowengart<sup>2</sup> in their study –“The Effect of Gender Differences on the Choice of Banking Services” stated that banks usually have preferential treatment towards a specific gender in their customer base. This study also suggested further that banks should be impartial towards providing services towards their customers irrespective of the gender.

**Table 4.1.1**

<b>GENDER DISTRIBUTION TABLE</b>				
<b>Gender</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>Male</b>	75%	85%	54%	100
<b>Female</b>	25%	15%	46%	0
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

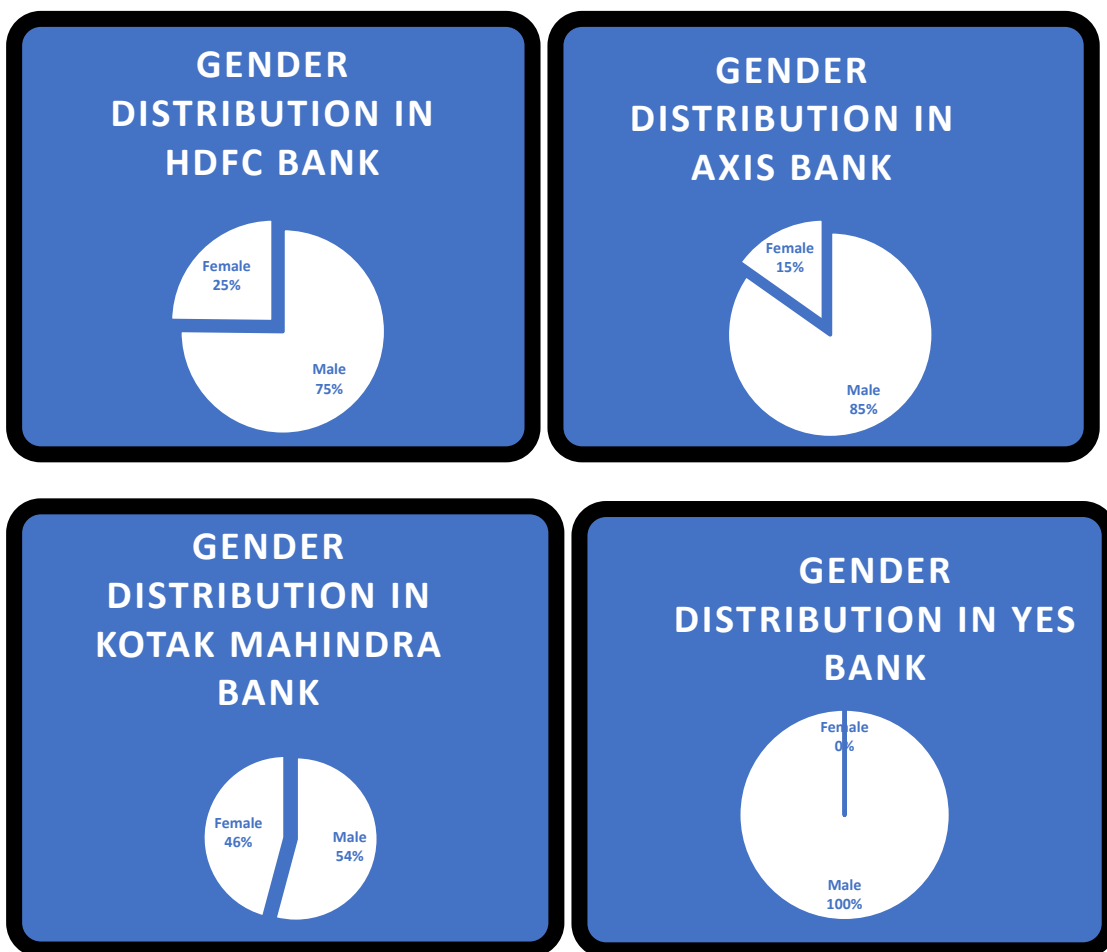
**Fig 4.1.1**



**Source: Author's Calculation**

In the above tabular & pictorial representation ,a glimpse of the respondents based on their gender. Out of total respondents the study has 68% male respondents & 32% female respondents. Some studies have claimed that some banks have an inclination towards serving a specific gender ,which will be further tested through a fitness of good test-Chi Sq Test to prove any positive correlation between gender and banks customer database.

**Fig:4.1.2**



**Source :Author's Calculation**



In the figure 4.1.2 we have a glimpse of the respondents in the four sample banks .In HDFC we have 75% male respondents & 25% female respondents. In Axis Bank we find that there are 85% male respondents & 15% female respondents. Kotak Mahindra Bank has 54% male respondents & 46% female respondents .All the respondents of Yes Bank were male. Through this depiction it may be said that all the sample New Generation Bank are male dominated. To substantiate it further Chi Square -Fitness of Good test is conducted.

### **Reliability Test**

The reliability analysis allows to study the features of the measurement scales and the items that comprise the scales. The Integrity Analysis Process calculates the number of commonly used measurement reliability scales and provides information about the interactions between each item on the scale. Intraclass communication coefficients can be used to calculate intermediate levels of intermediate levels.

In order for the test to be acceptable, the results of the chi-square test must comply with the following parameters:

- The chi-square result must be higher than 5;
- Confidence level must be 95% at least;
- The variable should be represented in, at least, 5 units of the sample

**Table 4.1.2**

**Reliability Test:**

<b>BANK</b>	<b>MALE</b>	<b>FEMALE</b>	<b>X<sup>2</sup></b>	<b>P-value</b>
<b>HDFC BANK</b>	<b>75%</b>	<b>25%</b>	0.00000000374527	<b>1</b>
<b>AXIS BANK</b>	<b>85%</b>	<b>15%</b>	0.00000238008	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>54%</b>	<b>46%</b>	0.683091398	0.999884949
<b>YES BANK</b>	<b>100%</b>	<b>0%</b>	0.000000963357	<b>1</b>

**Source :Author's Calculation**

From the table 4.1.2 it can be concluded that gender does not play a pivotal role while choosing a New generation bank .

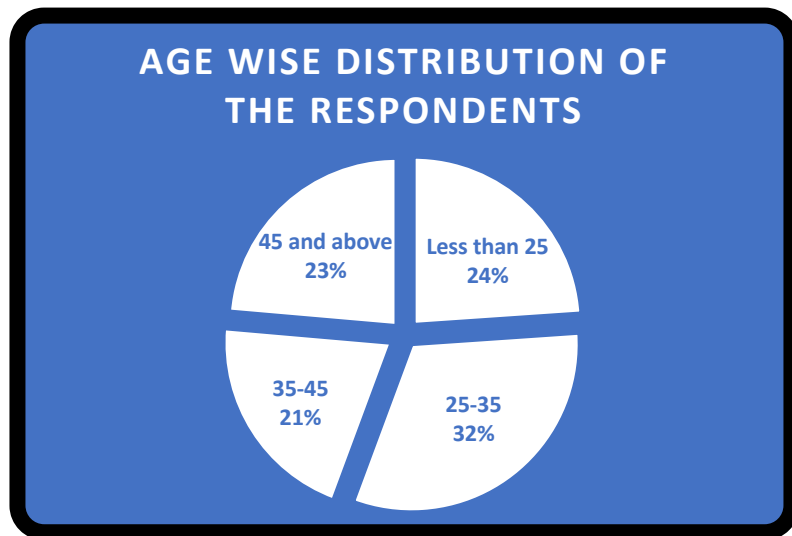
**4.1.2 AGE:**

ADVANCING THE DIGITAL FINANCIAL INCLUSION OF YOUTH-A report prepared for the G20 Global Partnership for financial inclusion by OECD cited that world 16% population belongs the age group 15-24 years. The study emphasized an urgent need to get the youth of any country financially upgraded and upskilled .Table 4.1.3 depicts the age wise distribution of the respondents of the current study.

**TABLE 4.1.3**

<b>AGE WISE DISTRIBUTION OF THE CUSTOMERS</b>				
<b>Age</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>Less than 25</b>	37 %	27 %	43 %	14 %
<b>25-35</b>	18 %	13 %	30 %	10 %
<b>35-45</b>	24 %	27 %	17 %	34 %
<b>45 and above</b>	22 %	33 %	9 %	41 %

**Fig:4.1.3**

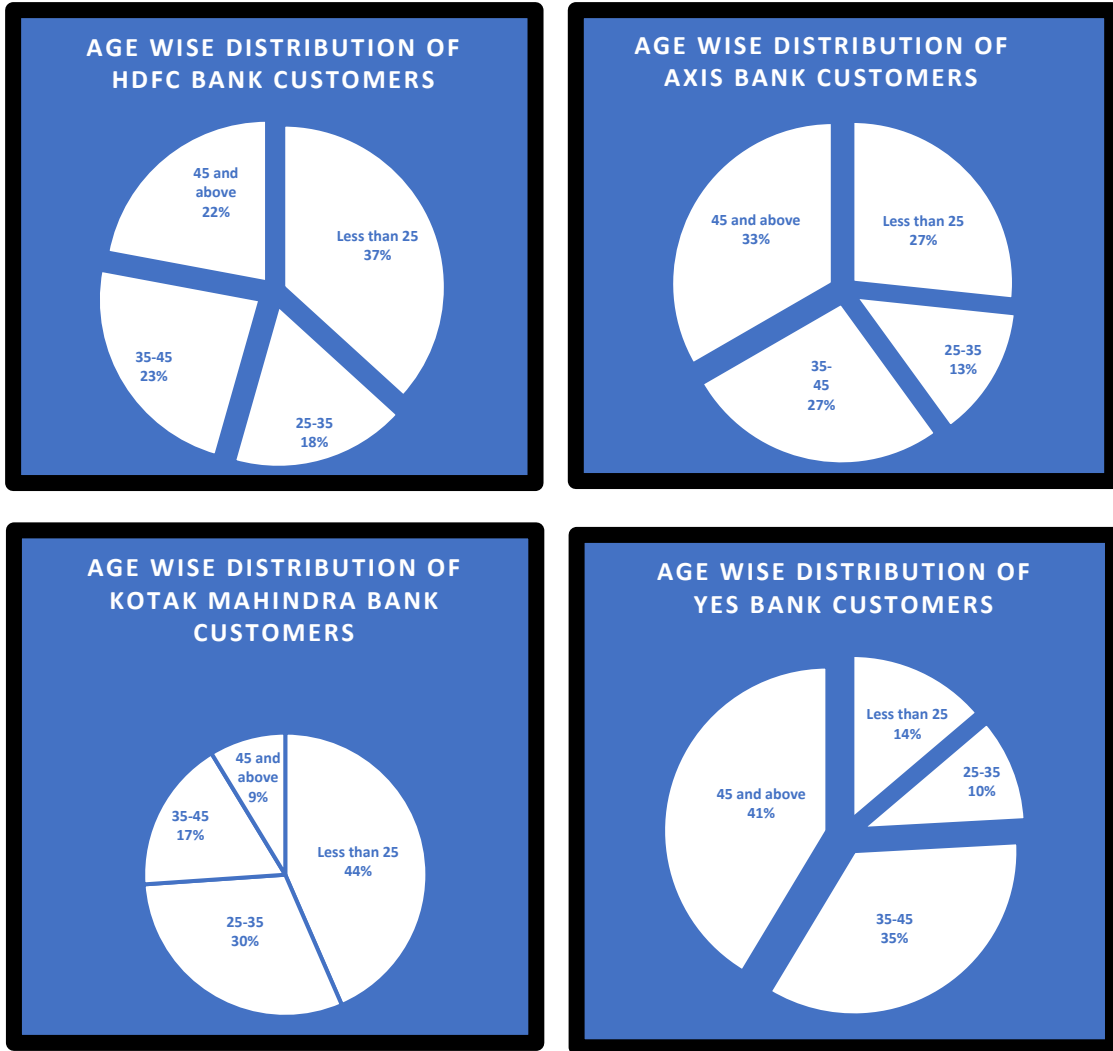


**Source: Author's Calculation**

In fig 4.1.3 it is depicted that 24% respondents are less than 25 years,32% respondents are between 25-35 years,21%respondents are between 35-45 and finally 23% are above 45 years of age. It is observed that 56% of the total respondents are below 35 years of age

hence it can be said that the sample New generation Banks are working towards empowering the youth towards digitalization.

**Fig:4.1.4**



**Source: Author's Calculation**

Fig 4.1.4 demonstrates the age wise spread of customers across the sample New Generation Banks. HDFC has a customer base of 37% who are less than 25 ,18% who are between 25-35,23% between 35-45 &22% who are 45 and above. Axis Bank has 27% respondents who

are below 25 ,13% who are between 25-35,27% of the responses were received from the age bracket of 35-45 years of age, whereas the last criteria of 45 years and above has only 22% responses. Yes bank demonstrates the following responses ,14 % belong to less than 25 years age,10% between 25-35,35% between 35-45 & 41% are those who belong to 45 years and above criteria.

Kotak Mahindra Bank has only 9% responses from the age bracket of 45 and above remaining 91% are further distributed as follows,44% belong to less than 25 years criteria,30% between 25-35 & 17% between 35-45.

Observation of the above facts leads to the point that major New Generation Banks have young customers. But weather they have a priority of having youth as their customer base and focus on delivering services to them can only be tested via a Fitness of Good Fit test.

In order for the test to be acceptable, the results of the chi-square test must comply with the following parameters:

- The chi-square result must be higher than 5;
- Confidence level must be 95% at least;
- The variable should be represented in, at least, 5 units of the sample

**Table 4.1.4**

**Reliability Test:**

<b>BANK</b>	<b>Less than 25</b>	<b>25-35</b>	<b>35-45</b>	<b>45 &amp;Above</b>	<b>X<sup>2</sup></b>	<b>P -Value</b>
<b>HDFC BANK</b>	<b>33%</b>	<b>27%</b>	<b>23%</b>	<b>22%</b>	0.01141201	<b>1</b>
<b>AXIS BANK</b>	<b>27%</b>	<b>13%</b>	<b>27%</b>	<b>33%</b>	0.28388613	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>44%</b>	<b>30%</b>	<b>17%</b>	<b>9%</b>	0.09404918	<b>1</b>
<b>YES BANK</b>	<b>10%</b>	<b>35%</b>	<b>41%</b>	<b>14%</b>	0.04392143	<b>1</b>

**Source: Author's Calculation**

Table 4.1.4 depicts that the P value of all the bank is 1 which is more than the significance level of .05 therefore there is no relation between banks and a specific preference of a particular age.

**4.1.3 OCCUPATION:**

The concept of work has long despised the satisfactory definition of a career therapist or occupational scientist. Recently, both Kielhofer and Nelson tried to define the term Work in a way that will reduce the ambiguity associated with the use of the word. This article compares and contrasts their work ideas, explaining how the word work and related concepts are defined and used. The identified differences and similarities provide the basis for recommendations for continuous improvement and confirmation of job description.

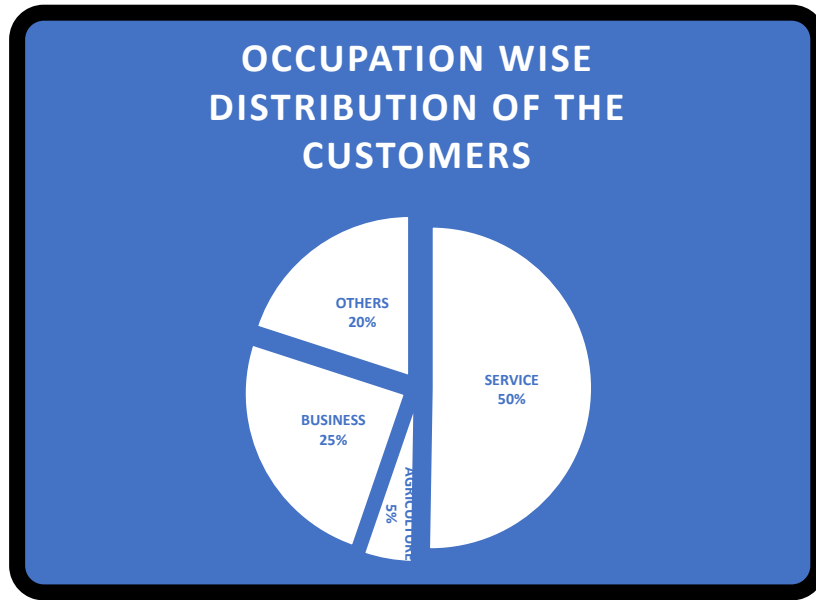
**Table 4.1.5**

**OCCUPATION WISE DISTRIBUTION OF THE CUSTOMERS**

<b>OCCUPATION</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>SERVICE</b>	64 %	44 %	68 %	43 %
<b>AGRICULTURE</b>	4 %	20 %	0	4 %
<b>BUSINESS</b>	24 %	27 %	18 %	39 %
<b>OTHERS</b>	8 %	9 %	14 %	14 %

**Source :Author's Calculation**

**Fig:4.1.5**



**Source :Author's Calculation**

Table 4.1.5 & Fig 4.1.5 depicts the occupation variability of the respondents.50 % of the respondents belong to the service sector,5 % to the agriculture sector 25% to the business sector & 20% to the other sector. Table 4.1.5 also showcases that all the sample New Generation banks get majority of their customers from service and the business sector. It may therefore be concluded that customers belonging to this category have a higher level of reliability on these New Generation Banks.

Fig 4.1.6 shows a bank wise distribution of the respondents according to their occupation.

**Fig:4.1.6**



Source :Author’s Calculation



**4.1.4 EDUCATION:-**

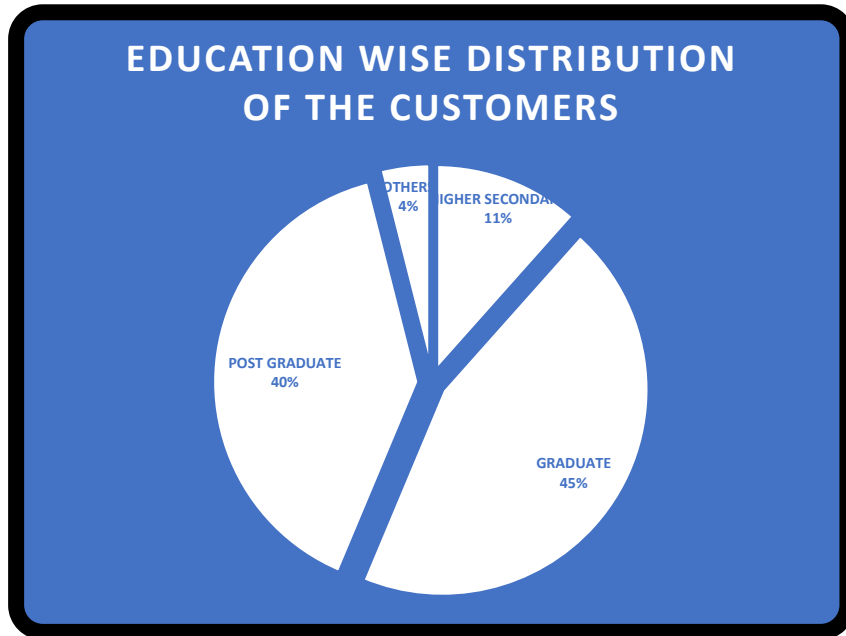
**Table 4.1.6**

**EDUCATION WISE DISTRIBUTION OF THE CUSTOMERS**

<b>EDUCATION</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>HIGHER SECONDARY</b>	31	18	26	17
<b>GRADUATE</b>	13	46	57	48
<b>POST GRADUATE</b>	71	36	13	35
<b>OTHERS</b>	4	0	4	0

**Source: Author’s Calculation**

**Fig:4.1.7**

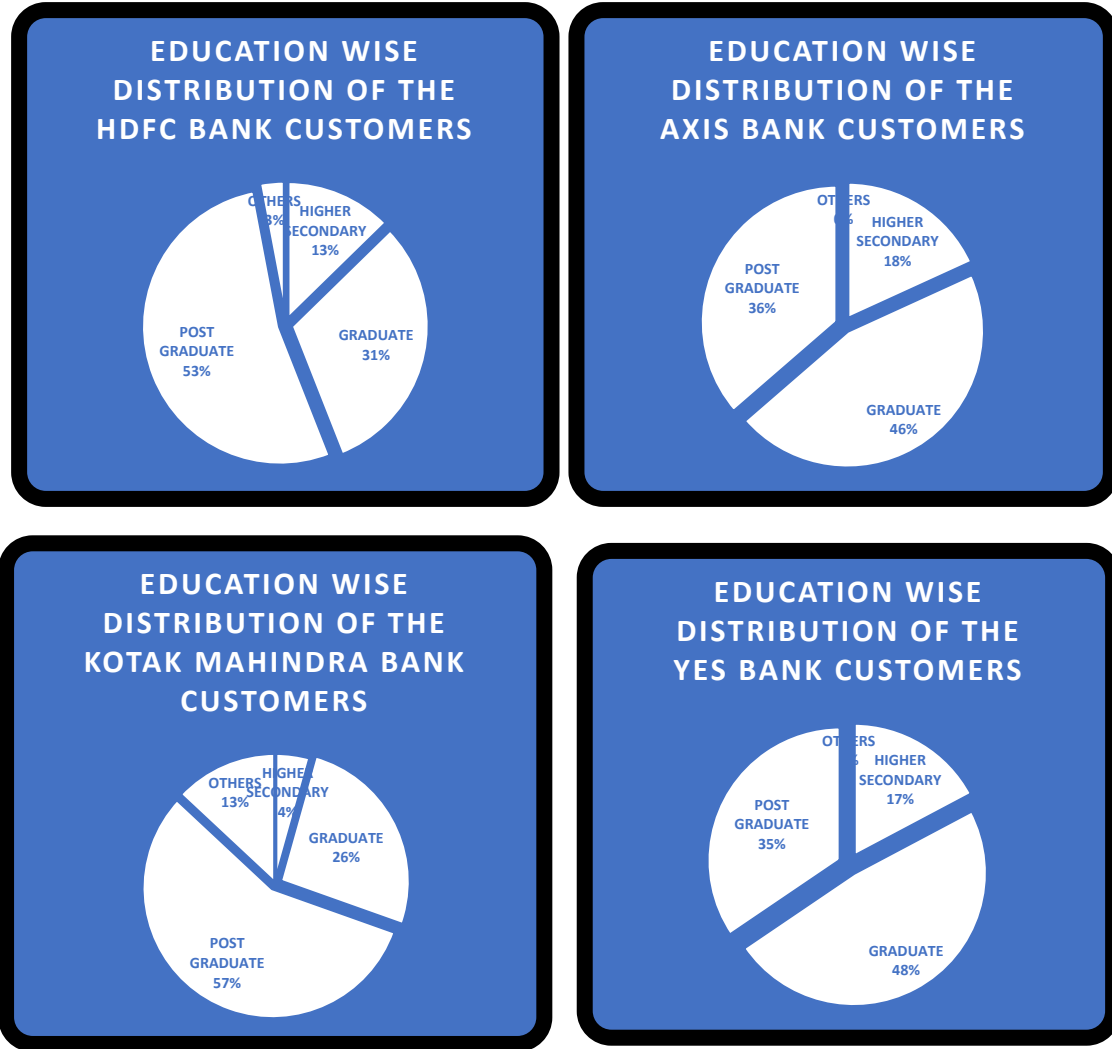


**Source: Author’s Calculation**

Table 4.1.6 represents education wise categorization of the respondents of the sample New Generation Banks. The chart depicts that maximum respondents are educated 85% of the respondents are either graduate or post graduates. The importance of being educated here

is that the respondents understands the services provided by the banks and the needs of the customers that has to be addressed by the bank.

**Fig:4.1.8**



**Source: Author's Calculation**

Fig 4.1.8 shows a bank wise categorization of the respondents according to their education level.31% respondents of HDFC Bank are graduates ,53% are Post graduates. Axis bank has 46% respondents as graduates & 36% are post graduates.57% respondents of Kotak

Mahindra Bank are post graduates .Yes bank has 48% respondents who are graduates & 35% Post Graduates.

**Table 4.1.7**

**RELIABILITY TEST**

EDUCATION	HIGHER SECONDARY	GRADUATE	POST GRADUATE	OTHERS	X <sup>2</sup>	P Value
<b>HDFC Bank</b>	31	18	26	17	0.0000000000 000000732417	1
<b>Axis Bank</b>	13	46	57	48	0.0000847014	1
<b>Kotak Mahindra Bank</b>	71	36	13	35	0.002418132	1
<b>Yes Bank</b>	4	0	4	0	0.00159546	1

**Source: Author’s Calculation**

Table 4.1.7 showcases a P value of 1 across all the sample new generation banks ,this therefore proves that education level does not have any significant impact on the decision making process of which bank to open an account into.

**4.1.5 :ANNUAL INCOME**

The study focused on the respondents who were earning less than 2,50,000 Rs to the one’s earning more than 7,50,000 Rs. Banks are usually a place where customers come to deposit their savings .Table 4.1.8 illustrates distribution of annual income through the New Generation Banks.

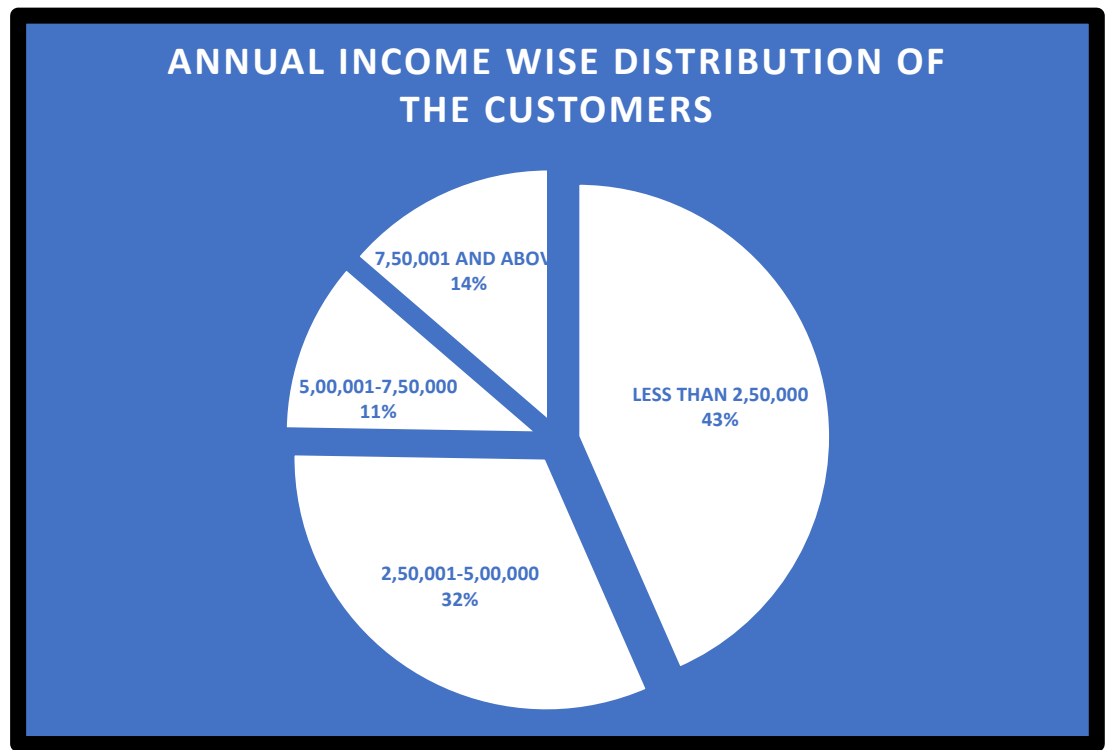
Shockingly 43% of the respondents have an annual income below 2,50,000 Rs 32% were those who earn between 2,50,000 Rs to 5,00,000 Rs 11% were those who earned between Rs 5,00,000 to Rs 7,50,000 & Lastly 14% who earn above 7,50,000 Rs.

**Table :4.1.8**

<b>ANNUAL INCOME</b>	<b>HDFC Bank</b>	<b>AXIS Bank</b>	<b>Kotak Mahindra Bank</b>	<b>Yes Bank</b>
<b>LESS THAN 2,50,000</b>	25%	30%	48%	35%
<b>2,50,001-5,00,000</b>	35%	45%	39%	62%
<b>5,00,001-7,50,000</b>	17%	16%	4%	3%
<b>7,50,001 AND ABOVE</b>	23%	9%	9%	0

**Source: Author’s Calculation**

**Fig:4.1.9**



**Source: Author’s Calculation**

#### **4.2- ANALYSIS OF THE IMPACT OF FINANCIAL PARAMETERS ON THE OVERALL PERFORMANCE OF THE NEW GENERATION BANKS:**

Post the establishment of New Generation Banks, the banking sector underwent key changes. With the advancement in the technologies, professional management has gained a realistic point .

The first and foremost objective of the study was to study the impact of Financial Performance on the Performance of New Generation Banks. The Performance of the Sample New Generation Banks is measured through the Ratio Analysis. A Set of 15 Ratios were taken to analyze the performance of these banks .The ratios were namely as follows:

- Credit Deposit Ratio
- Net Profit Ratio
- Deposit to Total Asset Ratio
- Deposit to Fixed Asset Ratio
- Fixed Assets to total Assets Ratio
- Investments to Advance Ratio
- Return on Equity Ratio
- Interest Expense Ratio
- Return on Assets Ratio
- Profit Margin Ratio
- Equity Multiplier Ratio

- Asset Utilization Ratio
- Non Interest Expense Ratio
- Non Interest Income Ratio
- Interest Income Ratio

#### **4.2.1-Credit Deposit Ratio-**

The ratio is usually used for measuring the bank's liquidity by dividing banks total loans and deposits.

The following formula was used to calculate the same:

$$\text{CREDIT DEPOSIT RATIO} = \text{TOTAL LOAN/TOTAL DEPOSITS}$$

The credit deposit ratio of the sample duration banks during the period of study is depicted in the table 4.2.1.

**Table 4.2.1**

<b>CREDIT DEPOSIT RATIO</b>				
<b>Year</b>	<b>AXIS BANK</b>	<b>HDFC BANK</b>	<b>KOTAK MAHINDRA BANK</b>	<b>YES BANK</b>
<b>2010-2011</b>	<b>0.75</b>	<b>0.77</b>	<b>1.51</b>	<b>0.7</b>
<b>2011-2012</b>	<b>0.77</b>	<b>0.79</b>	<b>1.46</b>	<b>0.57</b>
<b>2012-2013</b>	<b>0.78</b>	<b>0.81</b>	<b>0.95</b>	<b>0.63</b>
<b>2013-2014</b>	<b>0.82</b>	<b>0.82</b>	<b>0.9</b>	<b>0.61</b>
<b>2014-2015</b>	<b>0.87</b>	<b>0.81</b>	<b>1.22</b>	<b>0.83</b>
<b>2015-2016</b>	<b>0.28</b>	<b>0.10</b>	<b>0.15</b>	<b>0.28</b>
<b>2016-2017</b>	<b>0.25</b>	<b>0.12</b>	<b>0.13</b>	<b>0.27</b>
<b>2017-2018</b>	<b>0.33</b>	<b>0.16</b>	<b>0.13</b>	<b>0.37</b>
<b>2018-2019</b>	<b>0.28</b>	<b>0.13</b>	<b>0.14</b>	<b>0.48</b>
<b>2019-2020</b>	<b>0.23</b>	<b>0.13</b>	<b>0.14</b>	<b>1.08</b>
<b>2020-2021</b>	<b>0.20</b>	<b>1.02</b>	<b>0.08</b>	<b>0.39</b>
<b>Average</b>	<b>0.50533083</b>	<b>0.512656673</b>	<b>0.620220869</b>	<b>0.565042407</b>
<b>Minimum</b>	<b>0.20199602</b>	<b>0.097027217</b>	<b>0.084434131</b>	<b>0.270212006</b>
<b>Maximum</b>	<b>0.87</b>	<b>1.018239892</b>	<b>1.51</b>	<b>1.079980638</b>

**Source: Author's Calculation and respective Bank's Website.**

In the table 4.2.1 it can be reviewed that the highest average credit deposit ratio is with Kotak Mahindra Bank at 0.62. The minimum ratio registered was 0.10 by HDFC Bank in the year 2015-16 and the Maximum was registered by Kotak Mahindra Bank in the year 2010-2011.

#### 4.2.2-Net Profit Ratio:

Net Profit ratio is a way to measure the financial effectiveness of an organization. It is based on the data derived from the financial statements of a business firm. It measures the relationship between Net Profit and the Advances.

The ratio to calculate Net Profit is as follows

$$\text{NET PROFIT RATIO} = \frac{\text{NET PROFIT}}{\text{TOTAL ADVANCES}} * 100$$

The Net Profit Ratio of the sample duration banks during the period of study is depicted in the table 4.2.2.

**Table 4.2.2**

NET PROFIT RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	2.38	2.45	3.8	2.12
2011-2012	2.5	2.64	3.48	2.57
2012-2013	2.63	2.81	2.81	2.77
2013-2014	2.7	2.8	2.83	2.91
2014-2015	2.62	2.8	3.46	2.65
2015-2016	1.31	2.65	0.02	2.59
2016-2017	0.64	2.62	0.03	2.52
2017-2018	0.05	2.66	0.02	2.08
2018-2019	1.06	2.57	0.02	0.71
2019-2020	0.43	2.64	0.03	-9.58
2020-2021	1.94	2.75	0.03	-2.07
Average	1.66	2.67	1.50	0.84
Minimum	0.05	2.45	0.017	-9.57
Maximum	2.7	2.81	3.8	2.91

Source: Author's Calculation and respective Bank's Website.



Table 4.2.2 analyses the Net Profit Ratio, the highest average is of HDFC Bank. The lowest ratio registered was by Yes Bank in the year 2019-2020 where the bank earned a loss of (9.58) and the highest ratio was registered by that of 2.91 by Yes Bank in the year 2013-2014.

#### 4.2.3 Deposit to Total Assets Ratio-

The deposit to total asset ratio is an indicator to financial leverage. It talks about what percentage of total assets is backed by the creditors, liabilities and debt factor.

The ratio of Deposit to Total Asset Ratio is calculated as follows-

$$\text{DEPOSIT TO TOTAL ASSET RATIO} = \text{TOTAL DEPOSIT} / \text{TOTAL ASSET}$$

Table 4.2.3

DEPOSIT TO TOTAL ASSET RATIO				
YEAR	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	0.78	0.75	0.37	0.79
2011-2012	0.77	0.73	0.39	0.67
2012-2013	0.74	0.74	0.61	0.68
2013-2014	0.73	0.75	0.67	0.68
2014-2015	0.7	0.76	0.49	0.66
2015-2016	0.68	0.77	0.72	0.68
2016-2017	0.69	0.75	0.73	0.66
2017-2018	0.66	0.74	0.73	0.64
2018-2019	0.68	0.74	0.72	0.60
2019-2020	0.70	0.75	0.73	0.41
2020-2021	0.71	0.08	0.73	0.60
Average	0.712780126	0.68681824	0.626854524	0.642258935
Minimum	0.656159368	0.076170522	0.37	0.408659328
Maximum	0.78	0.770865549	0.733611695	0.79

Source: Author's Calculation and respective Bank's Website.

Table 4.2.3 reviews that the highest average is depicted by Axis Bank 0.71. The highest ratio is shown by Yes Bank as 0.79 and lowest is shown by HDFC Bank in the year 2020-2021 as 0.08

#### 4.2.4 Deposit to Fixed Asset Ratio-

Deposit to Fixed Asset ratio may be defined as the ratio of total deposit to total fixed assets.

The formula to calculate the same is as follows:

**DEPOSIT TO FIXED ASSET RATIO-TOTAL DEPOSIT/TOTAL FIXED ASSET**

Table 4.2.4

DEPOSIT TO FIXED ASSET RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	83.25	96.09	45.75	346.89
2011-2012	97.42	105.11	59.59	277.53
2012-2013	107.24	109.6	109.88	291.69
2013-2014	116.56	124.95	53.37	252.81
2014-2015	128.24	144.411	52.73	285.85
2015-2016	101.61	163.45	14.00	237.70
2016-2017	110.62	177.51	102.42	209.18
2017-2018	114.23	218.68	126.16	241.27
2018-2019	135.89	229.07	136.81	278.59
2019-2020	148.14	258.97	161.93	104.42
2020-2021	166.62	27.11	182.48	75.86
Average	119.0749686	150.44928	95.011564	236.527375
Minimum	83.25	27.1053168	14.00151485	75.8594041
Maximum	166.6209658	258.971338	182.47557	346.89

Source: Author's Calculation and relevant Bank's website

Table 4.2.4 illustrates that the highest average Deposit to Fixed Asset Ratio is earned by 236.52. Highest Deposit to Fixed Ratio is earned by Yes Bank in the year 346.89 in the year 2010-2011 whereas the lowest is earned by HDFC Bank in the year 2020-2021 as 27.11.

#### 4.2.5 Fixed Assets to Total Assets Ratio-

Fixed asset to total asset ratio is explained as the ratio between fixed assets and total assets. It defines the ratio between fixed and total assets, it speaks about the relation as to what percentage of Total Asset is covered by Fixed Assets.

It may be calculated as follows:

$$\text{TOTAL FIXED ASSETS TO TOTAL ASSETS RATIO} = \frac{\text{FIXED ASSETS}}{\text{TOTAL ASSETS}}$$

Table 4.2.5

FIXED ASSET TO TOTAL ASSET RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	0.009	0.008	0.008	0.002
2011-2012	0.007	0.007	0.007	0.002
2012-2013	0.006	0.007	0.006	0.002
2013-2014	0.006	0.006	0.013	0.003
2014-2015	0.005	0.005	0.009	0.001
2015-2016	0.007	0.005	0.052	0.003
2016-2017	0.006	0.004	0.007	0.003
2017-2018	0.006	0.003	0.006	0.003
2018-2019	0.005	0.003	0.005	0.002
2019-2020	0.005	0.003	0.005	0.004
2020-2021	0.004	0.003	0.004	0.008
Average	0.005	0.004	0.011	0.0029
Minimum	0.004	0.002	0.004	0.001
Maximum	0.009	0.008	0.051	0.007

Source: Author's Calculation and relevant Banks website

The highest average showcased is by Kotak Mahindra Bank as 0.011. Kotak Mahindra Bank showcases highest Fixed Asset to total Asset Ratio as 0.052 in the year 2015-2016 and the lowest is shown by Yes bank in the year 2010-2011 as 0.002

#### 4.2.6 Investment to Advance Ratio.

Investment to advance ratio may be defined as the proportion of Investments to total advances. It explains the relation between Investments and Advances.

It may be calculated as follows:

$$\text{INVESTMENT TO ADVANCE RATIO} = \frac{\text{TOTAL INVESTMENTS}}{\text{TOTAL ADVANCE}}$$

Table 4.2.6

INVESTMENT TO ADVANCE RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	0.51	0.44	0.63	0.55
2011-2012	1.34	0.5	0.6	0.73
2012-2013	0.58	0.47	0.6	0.91
2013-2014	0.49	0.4	0.48	0.74
2014-2015	0.47	0.46	0.53	0.62
2015-2016	0.36	0.35	0.43	0.50
2016-2017	0.36	0.39	0.33	0.38
2017-2018	0.36	0.37	0.38	0.34
2018-2019	0.36	0.35	0.36	0.37
2019-2020	0.36	0.39	0.34	0.26
2020-2021	0.36	0.39	0.47	0.26
Average	0.504	0.410	0.468	0.513
Minimum	0.360140861	0.352749611	0.33122676	0.256143441
Maximum	1.34	0.5	0.63	0.91

Source: Author's Calculation and relevant banks website.

Highest average is shown by 0.51 by Yes Bank. Axis Bank shows the highest ratio of 1.34 in the year 2011-2012. Lowest ratio is being showcased by Yes Bank for simultaneous 2 years of 0.26 from 2019-2021.

#### 4.2.7-Return on Equity Ratio:

This ratio measures the net income earned after paying the taxes for every penny invested in the organization. The formula to calculate the ratio is as follows:

$$\text{RETURN ON EQUITY} = \text{NET INCOME} / \text{TOTAL EQUITY CAPITAL}$$

Table 4.2.7

RETURN ON EQUITY				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	8.14	8.44	4.26	2.09
2011-2012	10.27	11.01	5	2.77
2012-2013	11.07	14.13	5.9	3.63
2013-2014	13.23	17.67	6.52	4.49
2014-2015	15.52	20.38	7.94	4.8
2015-2016	39.64	24.32	9.85	21.31
2016-2017	36.50	28.39	10.64	21.88
2017-2018	26.32	33.69	11.07	25.47
2018-2019	11.20	38.70	12.94	24.77
2019-2020	18.10	47.89	12.71	-16.51
2020-2021	25.70	56.44	10.56	-0.71
Average	19.60	27.36	8.85	8.54
Minimum	8.14	8.44	4.26	-16.50
Maximum	39.64212185	56.44	12.94	25.46

Source: Author's Calculation and relevant banks website.

Highest average is showcased by Axis Bank as 19.60.56.44 is the highest average in 2020-2021 shown by HDFC Bank and the lowest amount is shown by Yes Bank in the year 2020-2021 as (0.71).

#### 4.2.8-Interest Expense Ratio:

This is the second most important ratio in a banks income statement. Items listed in this is purely taken from the balance sheet. The ratio is calculated as follows:

$$\text{INTEREST EXPENSE RATIO} = \text{INTEREST EXPENSE} / \text{TOTAL OPERATING INCOME}$$

Table 4.2.8

INTEREST EXPENSE RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	1.35	1.2	1.1	2.35
2011-2012	1.89	1.6	1.65	3.05
2012-2013	1.87	1.68	1.81	2.84
2013-2014	1.61	1.58	1.58	2.7
2014-2015	1.57	1.5	1.46	2.49
2015-2016	0.55	0.15	0.75	0.70
2016-2017	0.65	0.17	0.65	0.67
2017-2018	0.78	0.22	0.62	0.66
2018-2019	1.12	0.35	0.63	0.83
2019-2020	1.26	0.47	0.63	4.60
2020-2021	1.31	0.52	0.55	1.38
Average	1.269208993	0.85882456	1.039073296	2.02494696
Minimum	0.548019829	0.15348828	0.547619048	0.65975147
Maximum	1.89	1.68	1.81	4.60459001

Source: Author's Calculation and relevant banks website.

The highest average is 2.024 reviewed by Yes Bank. The highest ratio is showcased by Yes Bank of 4.60 in the year 2019-2020 and the minimum value is being depicted by HDFC Bank in the year 0.15 in the year 2015-2016.

#### 4.2.9 Return on Assets Ratio:

Return on Assets Ratio establishes the ground as to what was the net income for ever amount invested in. Return on Assets measures the proportion of the amount earned in comparison to the amount of assets invested in .It can be calculated as follows:

$$\text{RETURN ON ASSETS} = \text{NET INCOME} / \text{TOTAL ASSETS}$$

**Table 4.2.9**

RETURN ON ASSET				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	0.014	0.01	0.021	0.012
2011-2012	0.015	0.02	0.02	0.013
2012-2013	0.015	0.02	0.019	0.013
2013-2014	0.016	0.01	0.021	0.014
2014-2015	0.016	0.02	0.021	0.015
2015-2016	0.04	0.02	0.05	0.05
2016-2017	0.03	0.02	0.05	0.05
2017-2018	0.02	0.02	0.04	0.04
2018-2019	0.01	0.02	0.04	0.03
2019-2020	0.01	0.02	0.03	-0.16
2020-2021	0.02	0.02	0.03	-0.01
Average	0.01769469	0.016593501	0.030457603	0.005590099
Minimum	0.00718936	0.01	0.019	-0.16070916
Maximum	0.03591025	0.02	0.046993899	0.054168205

Source: Author's Calculation and relevant bank's website

Highest average is put up by Kotak Mahindra Bank. Highest average is depicted by Yes Bank as 0.054 in the year 2016-17 and the lowest is shown by Yes Bank again as (0.16) in the year 2019-2020.

#### 4.2.10 Profit Margin Ratio:

Profit Margin Ratio measures the banks ability to keep a check on the expenses and its capability to produce the net income from its operating income. These ratio measure the proportion of total operating income to pay a specific expense.

The formula to calculate the same is as follows:

$$\text{PROFIT MARGIN RATIO} = \text{NET INCOME} / \text{TOTAL OPERATING INCOME}$$

**Table 4.2.10**

PROFIT MARGIN RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	0.52	0.51	0.66	0.61
2011-2012	0.57	0.55	0.67	0.63
2012-2013	0.55	0.59	0.66	0.61
2013-2014	0.54	0.59	0.63	0.6
2014-2015	0.54	0.6	0.64	0.62
2015-2016	0.43	0.06	0.72	0.70
2016-2017	0.43	0.07	0.66	0.63
2017-2018	0.39	0.10	0.64	0.62
2018-2019	0.19	0.15	0.62	0.48
2019-2020	0.34	0.21	0.57	-9.91
2020-2021	0.60	0.29	0.50	-0.39
Average	0.463853625	0.337083118	0.633078677	-0.43610168
Minimum	0.194647625	0.057840937	0.498190476	-9.905570165
Maximum	0.600213708	0.6	0.716608503	0.696491092

Source: Author's Calculation and relevant Banks website



Highest average is showcased by 0.633 by Kotak Mahindra Bank. The highest value is shown by Kotak Mahindra Bank as 0.72 in the year 2015-16 and the lowest value is stated by Yes Bank in the year 2019-2020 as (9.91).

#### 4.2.11 Equity Multiplier Ratio:

The ratio measures the relationship of the extent of involvement of debt and equity. Equity Multiplier ratio is the measure that every penny is funded the equity capital with the debt. The formula to calculate the same is :

$$\text{EQUITY MULTIPLIER RATIO} = \text{TOTAL ASSETS} / \text{TOTAL EQUITY CAPITAL}$$

Table 4.2.11

EQUITY MULTIPLIER RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK BANK	MAHINDRA YES BANK
2010-2011	590.84	596.17	199.98	169.98
2011-2012	690.74	719.97	249.36	208.68
2012-2013	727.76	841.24	310.3	276.34
2013-2014	822.29	1024.57	317.37	302.29
2014-2015	985.53	1177.95	387.74	325.97
2015-2016	1103.92	1401.88	209.66	393.48
2016-2017	1255.67	1685.51	233.13	471.62
2017-2018	1347.62	2049.89	278.05	679.23
2018-2019	1558.36	2284.99	327.09	822.52
2019-2020	1622.63	2791.22	376.63	102.72
2020-2021	1627.64	3168.75	387.00	54.60
Average	1121.18	1612.92	297.84	346.12
Minimum	590.84	596.17	199.98	54.59
Maximum	1627.64	3168.75	387.74	822.51

Source: Author's Calculation and relevant bank's website.

Highest Average is denoted by HDFC Bank as 1612.92. The maximum value is backed by HDFC Bank again as 3168.75 in the year 2020-2021. Whereas the minimum value is showcased by YES Bank as 54.59 in the year 2020-2021.

#### 4.2.12 Asset Utilization Ratio:

The asset utilization ratio measures the extent to which the bank assets generate revenue. It also takes into account the ability of the banks to generate Interest & Non Interest Income.

The formula to calculate the same is as follows:

$$\text{ASSET UTILIZATION RATIO} = \text{TOTAL OPERATING INCOME} / \text{TOTAL ASSETS}$$

Table 4.2.12

ASSET UTILISATION RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	0.026	0.02	0.033	0.02
2011-2012	0.026	0.028	0.03	0.021
2012-2013	0.028	0.029	0.029	0.022
2013-2014	0.03	0.029	0.033	0.025
2014-2015	0.029	0.027	0.032	0.024
2015-2016	0.08	0.30	0.07	0.08
2016-2017	0.07	0.24	0.07	0.07
2017-2018	0.05	0.17	0.06	0.06
2018-2019	0.04	0.12	0.06	0.06
2019-2020	0.03	0.08	0.06	0.02
2020-2021	0.03	0.06	0.05	0.03
Average	0.03	0.10	0.04	0.03
Minimum	0.02	0.02	0.02	0.02
Maximum	0.08	0.29	0.06	0.07

Source: Author's Calculation and relevant banks website

The highest average is depicted by Kotak Mahindra Bank as 0.0483 .The maximum value was shown by Yes Bank as 0.08 in the year 2015-16.The minimum value is therefore showcased by Yes Bank as 0.02 in the year 2019-20

#### 4.2.13 Non Interest Expenses Ratio:

Non Interest Expense mainly concerns about the personnel expenses associated with the categories such as salaries and employee benefit expenses of premises and fixed assets.

The formula to calculate the same is follows:

$$\text{NON INTEREST EXPENSE RATIO} = \frac{\text{NON INTEREST EXPENSE}}{\text{TOTAL OPERATING INCOME}}$$

Table 4.2.13

NON INTEREST EXPENSE RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK
2010-2011	1.24	1.42	2.85	0.96
2011-2012	1.25	1.44	2.4	0.97
2012-2013	1.2	1.4	2.32	1.02
2013-2014	1.16	1.25	2.11	1.05
2014-2015	1.15	1.22	2.41	1.09
2015-2016	0.46	0.12	0.59	0.37
2016-2017	0.64	0.15	0.55	0.42
2017-2018	0.84	0.21	0.58	0.46
2018-2019	1.02	0.31	0.55	0.53
2019-2020	1.31	0.42	0.60	8.39
2020-2021	1.43	0.54	0.66	1.56
Average	1.06397146	0.771890175	1.420266376	1.528324088
Minimum	0.4582889	0.12252626	0.548396749	0.368785498
Maximum	1.43062128	1.44	2.85	8.386325604

Source: Author's Calculation and relevant banks website

The highest average is of Yes Bank as 1.52 and the maximum ratio is reflected by Yes Bank at 8.38 in the year 2019-2020 and the minimum value is depicted by 0.12 by HDFC Bank in the year 2015-2016.

#### 4.2.14 Non Interest Income Ratio:

Non Interest Income ratio includes all other income than interest income received by the bank during a specific year. The formula to calculate the same is as follows:

$$\text{NON INTEREST INCOME RATIO} = \text{NON INTEREST INCOME} / \text{TOTAL ASSETS}$$

Table 4.2.14

NON INTEREST INCOME RATIO					
Year	AXIS BANK	HDFC BANK	KOTAK BANK	MAHINDRA	YES BANK
2010-2011	1.24	1.42	2.85		0.96
2011-2012	1.25	1.44	2.4		0.97
2012-2013	1.2	1.4	2.32		1.02
2013-2014	1.16	1.25	2.11		1.05
2014-2015	1.15	1.22	2.41		1.09
2015-2016	0.46	0.12	0.59		0.37
2016-2017	0.64	0.15	0.55		0.42
2017-2018	0.84	0.21	0.58		0.46
2018-2019	1.02	0.31	0.55		0.53
2019-2020	1.31	0.42	0.60		8.39
2020-2021	1.43	0.54	0.66		1.56
Average	1.06397146	0.771890175	1.420266376		1.528324088
Minimum	0.4582889	0.12252626	0.548396749		0.368785498
Maximum	1.43062128	1.44	2.85		8.386325604

Source: Author's Calculation and relevant bank's website

The highest average is showcased by Yes Bank as 1.52. The maximum value is shown by Yes Bank as 8.38 in the year 2019-2020. The minimum value is 0.12 by HDFC Bank in the year 2015-2016.

#### 4.2.15 Interest Income Ratio:

Interest Income is the income which is due on the loans which were taken in the past but can be still recorded as a generating income for the bank. The formula to calculate the same is as follows:

$$\text{INTEREST INCOME RATIO} = \text{INTEREST INCOME} / \text{TOTAL ASSETS}$$

Table 4.2.15

INTEREST INCOME RATIO				
Year	AXIS BANK	HDFC BANK	KOTAK BANK	MAHINDRA YES BANK
2010-2011	0.019	0.016	0.066	0.011
2011-2012	0.019	0.017	0.049	0.012
2012-2013	0.02	0.017	0.044	0.013
2013-2014	0.02	0.016	0.043	0.016
2014-2015	0.018	0.015	0.055	0.015
2015-2016	0.21	0.05	0.21	0.21
2016-2017	0.29	0.06	0.24	0.26
2017-2018	0.31	0.09	0.25	0.28
2018-2019	0.44	0.12	0.23	0.19
2019-2020	0.52	0.19	0.25	2.83
2020-2021	0.57	0.23	0.26	0.36
Average	0.222002536	0.074165626	0.153350049	0.382547582
Minimum	0.018	0.015	0.043	0.011
Maximum	0.566249428	0.232314201	0.259952381	2.834329429

Source: Author's Calculation and relevant banks website

Highest Average is shown by HDFC bank as 0.74 .The maximum value is 2.83 shown by Yes Bank in the year 2019-2020 and the minimum value is shown by Yes Bank again as 0.011.

#### 4.2.16 PROFITABILITY POSITION OF NEW GENERATION BANKS.

Table 4.2.16

PROFITABILITY POSITION OF NEW GENERATION BANKS					
RATIO's	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK	RANK TOTAL
NET PROFIT RATIO	1.66	2.67	1.50	0.84	
	3.00	4.00	2.00	1.00	10.00
INVESTMENT TO ADVANCE RATIO	0.50	0.41	0.47	0.51	
	3.00	1.00	2.00	4.00	10.00
RETURN ON EQUITY	19.61	27.37	8.85	8.55	
	3.00	4.00	2.00	1.00	10.00
INTEREST EXPENSE RATIO	1.27	0.86	1.04	2.02	
	2.00	4.00	3.00	1.00	10.00
RETURN ON ASSET	0.02	0.02	0.03	0.01	
	3.00	2.00	4.00	1.00	10.00
PROFIT MARGIN RATIO	0.46	0.34	0.63	-0.44	
	2.00	1.00	3.00	4.00	10.00
ASSET UTILISATION RATIO	0.04	0.10	0.05	0.04	
	2.00	4.00	3.00	1.00	10.00
NON INTEREST EXPENSE RATIO	1.06	0.77	1.42	1.53	
	3.00	4.00	2.00	1.00	10.00
NON INTEREST INCOME RATIO	0.22	0.07	0.15	0.38	
	2.00	4.00	1.00	3.00	10.00
INTEREST INCOME RATIO	0.07	0.08	0.08	0.08	
	2.00	1.00	4.00	3.00	10.00
TOTAL	25.00	29.00	26.00	20.00	100.00

Source: Author's Calculation .

Profitability Management Ratios indicate the banks ability ,capability and capacity to earn a substantial amount of profit. The ratios are the indicator of the banks health and stability. The ratios that depict the profitability status of the bank are as follows:

<b>Return of Equity</b>	<b>Asset Utilization</b>
<b>Return on Assets</b>	<b>Non Interest Expense</b>
<b>Profit Margin</b>	<b>Interest Income</b>
<b>Net Profit</b>	<b>Non Interest Income</b>
<b>Investments to Advance</b>	<b>Interest Expense</b>

Table 4.2.16 states the profitability status of New Generation Banks that they have earned during the study period. Each ratio that has been considered above has contributed in some or the other way to the profitability parameter. Once the ratio's are summated in the table they are further by ranked .According to the individual ranks given under each ratio an overall rank is further determined through which the profitability of the banks are ranked. Table 4.2.16 clearly showcases that based on the on the ranks assigned HDFC Bank stands out as the best performer and Yes Bank as the worst performer. Ranking of the banks as per profitability is shown in Table 4.2.17.

**Table 4.2.17**

<b>RANKING OF PROFITABILITY OF BANKS</b>		
<b>BANK</b>	<b>SCORE</b>	<b>RANK</b>
<b>AXIS BANK</b>	<b>25</b>	<b>3</b>
<b>HDFC BANK</b>	<b>29</b>	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>26</b>	<b>2</b>
<b>YES BANK</b>	<b>20</b>	<b>4</b>

Source: Author's Calculation

**4.2.18:LIQUIDITY POSITION OF THE NEW GENERATION BANKS:**

**Table 5.2.18**

<b>LIQUIDITY POSITION OF NEW GENERATION BANKS</b>					
<b>RATIO's</b>	<b>AXIS BANK</b>	<b>HDFC BANK</b>	<b>KOTAK MAHINDRA BANK</b>	<b>YES BANK</b>	<b>RANK TOTAL</b>
<b>CREDIT DEPOSIT RATIO</b>	<b>0.51</b>	<b>0.51</b>	<b>0.62</b>	<b>0.57</b>	
	<b>1</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>10</b>
<b>DEPOSIT TO TOTAL ASSET RATIO</b>	<b>0.71</b>	<b>0.69</b>	<b>0.63</b>	<b>0.64</b>	
	<b>4</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>10</b>
<b>DEPOSIT TO FIXED ASSET RATIO</b>	<b>119.07</b>	<b>150.45</b>	<b>95.01</b>	<b>236.53</b>	
	<b>2</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>10</b>
<b>FIXED ASSET TO TOTAL ASSET RATIO</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	
	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>10</b>
	<b>9</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>40</b>

Source: Author's Calculation

Liquidity is the ability of an organization to generate cash to meet its obligation in case of contingencies. Investors are usually triggered with the liquidity position of the banks ,as it



speaks about the ability to meet the short term obligation of the bank. As per the list of 15 ratios taken for the study following 4 ratio's can be classified as the list of liquidity ratios-

- Credit Deposit Ratio
- Deposit to Total Asset Ratio
- Deposit to Fixed Asset Ratio
- Fixed Asset to Total Asset Ratio.

According to Table 4.2.18 it can be clearly seen that HDFC Bank ranks as one of the best performer followed by Kotak Mahindra Bank & Yes bank. The Worst performing bank in this sector is Axis Bank.

A cumulative ranking is summated in table 4.2.19.

**Table 4.2.19**

<b>RANKING OF LIQUIDITY OF BANKS</b>		
<b>BANK</b>	<b>SCORE</b>	<b>RANK</b>
<b>AXIS BANK</b>	<b>9</b>	<b>4</b>
<b>HDFC BANK</b>	<b>11</b>	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>10</b>	<b>2</b>
<b>YES BANK</b>	<b>10</b>	<b>2</b>

**Source: Author's Calculation.**

#### 4.2.18 CAPITAL ADEQUACY POSITION OF NEW GENERATION BANKS:

Capital adequacy analysis states the quality of the assets and the ability of provisions available to meet any shortfalls arising. It explains the relation a percentage of total risk weighted assets and shows the margins available to protect the interests of debtors and creditors against and unforeseen losses that may be showcased.

**Table 4.2.20**

CAPITAL ADEQUACY POSITION OF NEW GENERATION BANKS					
RATIO's	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK	TOTAL
EQUITY MULTIPLIER	1121.18	1612.92	297.85	346.13	
RATIO	3	4	1	2	10

Source: Author's Calculation

Table 4.2.20 shows the performance of the sample new generation banks. It can be seen that the best performer in this segment is Kotak Mahindra bank followed by Yes bank & Axis Bank. Shockingly HDFC Bank is the worst performer in this segment.

Table 4.2.21 showcases the overall ranking in this segment.

**Table 4.2.21**

RANKING OF CAPITAL ADEQUACY OF BANKS		
BANK	SCORE	RANK
AXIS BANK	3	3
HDFC BANK	4	4
KOTAK MAHINDRA BANK	1	1
YES BANK	2	2

Source: Author's Calculation

#### 4.2.21 RANKING OF BANKS ON THE BASIS OF OVERALL PERFORMANCE

To analyze the overall performance of the New Generation Banks all the 15 selected ratios will be scrutinized and the banks will be ranked according to the same.

Table 4.2.22 highlights the ranking of the New Generation bank. A total score of 150 was given to the New generation Banks .Out of 150 HDFC scored 44 for the second place there was a tie between Axis bank & Kotak Mahindra Bank at a score of 37.The third place was therefore skipped. Yes bank stood at the fourth place at a score of 32.

Hence it was proved that HDFC Bank is the market Leader as far as the sample New Generation Banks are concerned.

**Table 4.2.22**

<b>RANKING OF OVERALL PERFORMANCE OF BANKS</b>		
<b>BANK</b>	<b>SCORE</b>	<b>RANK</b>
<b>AXIS BANK</b>	<b>37</b>	<b>2</b>
<b>HDFC BANK</b>	<b>44</b>	<b>1</b>
<b>KOTAK MAHINDRA BANK</b>	<b>37</b>	<b>2</b>
<b>YES BANK</b>	<b>32</b>	<b>4</b>

**Source: Author's Calculation**

Table 4.2.23

OVERALL PERFORMANCE OF NEW GENERATION BANKS					
	AXIS BANK	HDFC BANK	KOTAK MAHINDRA BANK	YES BANK	TOTAL
CREDIT DEPOSIT RATIO	0.50533	0.51265667	0.62022087	0.565042407	
	1	2	4	3	10
NET PROFIT RATIO	1.66293	2.67160836	1.50259824	0.841803097	
	3	4	2	1	10
DEPOSIT TO TOTAL ASSET RATIO	0.71278	0.68681824	0.62685452	0.642258935	
	4	3	1	2	10
DEPOSIT TO FIXED ASSET RATIO	119.075	150.449281	95.011564	236.5273747	
	2	3	1	4	10
FIXED ASSET TO TOTAL ASSET RATIO	0.00597	0.00493158	0.01102058	0.002963097	
	2	3	4	1	10
INVESTMENT TO ADVANCE RATIO	0.50462	0.41072807	0.46869672	0.51345559	
	3	1	2	4	10
RETURN ON EQUITY	19.6085	27.368528	8.85384214	8.54508814	
	3	4	2	1	10
INTEREST EXPENSE RATIO	1.26921	0.85882456	1.0390733	2.024946964	
	2	4	3	1	10
RETURN ON ASSET	0.01769	0.0165935	0.0304576	0.005590099	
	3	2	4	1	10
PROFIT MARGIN RATIO	0.46385	0.33708312	0.63307868	-0.43610168	
	2	1	3	4	10
EQUITY MULTIPLIER RATIO	1121.18	1612.92144	297.847267	346.1299355	
	3	4	1	2	10
ASSET UTILISATION RATIO	0.03971	0.1000618	0.04834708	0.039660723	
	2	4	3	1	10
NON INTEREST EXPENSE RATIO	1.06397	0.77189018	1.42026638	1.528324088	
	3	4	2	1	10
NON INTEREST INCOME RATIO	0.222	0.07416563	0.15335005	0.382547582	
	2	4	1	3	10
INTEREST INCOME RATIO	0.07239	0.07930278	0.08351544	0.081025092	
	2	1	4	3	10
	37	44	37	32	150

Source: Author's Calculation.

#### 4.2.22 FRIEDMAN'S TEST:

Friedman's test is a non parametric test which requires restrictive assumptions concerned with the level of Data measurement. The test is used whenever the sample is more than or equal to 3 and each of the sample size is equally parallel to two way analysis of variance.

Under the null hypothesis ,the Friedman's test statistics is as follows:

$$F = \frac{12}{N_k (k+1)} \sum_{j=1}^k R_j^2 - 3n(k+1)$$

The study has a null hypothesis of:

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

For a null hypothesis to **be Rejected** p value has to be less than 0.05 at a significance level of 5%

The decision is taken on the basis of the SPSS 21 result based on which the null hypothesis will be accepted or rejected.

**Table 4.2.24**

BANK	MEAN RANK	CHI SQUARE	P-VALUE
AXIS Bank	1.68	7.654	0.022
HDFC Bank	3.00		
Kotak Mahindra Bank	1.30		
Yes Bank	1.38		

**Source : Author's Calculation through SPSS 21**

Since P Value in the said study is less than 0.05 ,therefore the null hypothesis is rejected at 5% level of significance. Hence it can be concluded that there is a significant impact of Financial Parameters on the Overall Performance of the New Generation Banks.

#### **4.3 ANALYSIS OF THE IMPACT OF NON FINANCIAL PARAMETERS ON THE OVERALL PERFORMANCE OF THE NEW GENERATION BANKS:**

Banking Industry transformation was introduced by the Indian Government based on the sanctions given by the Narasimhan Committee during the year 1991 & 1998. The sanctions given by the committee have duly changed the face of the banking industry. 1991 is also known as the year of “Banking Sector Reforms” which had heightened the platform for the private and foreign sector banks .Further these evolved private sector banks were known as the New Generation Banks.

There had been a complete increase in competition with the entry of private and foreign banks for the public sector banks. Therefore, Performance Management of commercial banks became of prime importance. As a matter of fact, traditionally the performance is measured through computation of ratios. To ensure that all the factors that affect the performance of the banking institution are measured, the current study takes Balance Score Card as the prime source of measurement.

Balance Score Card is a technique that has been developed by Kaplan & Norton in the year 1992. This is a strategic management technique that measures the performance parameters on a holistic approach rather than individualistic approach. The technique emphasizes to

take all the factors into consideration that drives the future performance. The balanced score card framework evaluates a business enterprise on four varied perspectives

- **Financial Perspective**
- **Customers Satisfaction Perspective**
- **Internal Business Process Perspective**
- **Learning & Growth Perspective**

Through these four perspective parameters the current study aims to understand:

- A. The impact of Non-Financial Parameters on the overall performance of new generation banks.
- B. How cumulatively both financial & non-financial parameters influence the overall performance of new generation banks.

The relative performance of the new generation bank is being observed and studied by using mean values and standard deviation. The variance in the performance level is analyzed through ANOVA Analysis. Anova analysis is a decision-making tool that tests the hypothesis when three or more populations are equal. The one way analysis of variance is used to determine whether there are any statistically significant differences between the means of three or more independent groups.

1. **Financial Perspectives-** This perspective underlines the need for and importance of finance in an origination and the impact of the same on the overall performance. To develop a mechanism for the measurement of the financial parameters the following ratios are taken into consideration.

A) **Credit Deposit Ratio-** This ratio measures the relation between how much a bank lends out in comparison to the deposits receive. It helps the banks to access the liquidity and talks about their financial help. If the ratio is high, it means that the banks don't have surplus liquidity to meet any contingent situation. Therefore, it is presumed that a lower credit deposit ratio is acceptable. Credit deposit ratio can be calculated as follows:

$$\text{CREDIT DEPOSIT RATIO} = \text{TOTAL ADVANCES} / \text{TOTAL DEPOSITS} * 100$$

Table 4.3.1

<b>CREDIT DEPOSIT RATIO</b>				
<b>YEAR</b>	<b>HDFC BANK</b>	<b>AXIS BANK</b>	<b>YES BANK</b>	<b>KOTAK MAHINDRA BANK</b>
<b>2010-2011</b>	279.48	141.31	74.80	100.23
<b>2011-2012</b>	325.76	6.63	77.29	101.41
<b>2012-2013</b>	308.20	5.36	70.20	94.98
<b>2013-2014</b>	278.19	4.79	74.99	89.77
<b>2014-2015</b>	268.44	3.15	82.86	88.38
<b>2015-2016</b>	85.02	94.64	87.91	85.59
<b>2016-2017</b>	86.16	90.03	92.57	86.44
<b>2017-2018</b>	83.46	96.92	101.39	88.10
<b>2018-2019</b>	88.76	90.21	106.10	91.06
<b>2019-2020</b>	86.60	89.27	162.72	83.61
<b>2020-2021</b>	84.85	88.18	102.42	79.86
<b>MEAN</b>	179.54	64.59	93.93	89.95
<b>STD DEV</b>	108.759081	49.5197416	25.9481175	6.65460496
<b>DF</b>	1,4			
<b>ANOVA F- VALUE</b>	<b>12.91586132</b>			
<b>P</b>	<b>0.022882854</b>			

Source: Author's Calculation



Table 4.3.1 showcases the mean result of the 4 sample New Generation Banks. The mean values of the sample banks are as follows HDFC Bank has a mean value of 179.54, Axis Bank has a value of 64.59, 93.93 value has been denoted to Yes Bank and Kotak Mahindra Bank has a mean value of 89.95. A high mean value means a higher dependability of these banks on deposits to lend loans and vice versa. It is further observed in the study that HDFC Bank has highest value both in Mean Value and standard deviation. Whereas Kotak Mahindra Bank has the third largest mean value and the least standard deviation.

P Value while considering the Credit Deposit Ratio is 0.022 which is less than the significance level of 0.05.

B) **Net Interest Margin Ratio:** Net Interest Margin ratio showcases the relation between interest paid & interest received, adjusted against the total amount of interest generated through the assets held by the bank.

It may be calculated through the following formula-

$$\text{NET INTEREST MARGIN} = \frac{\text{INTEREST REVENUE} - \text{INTEREST EXPENSE}}{\text{AVERAGE EARNING ASSET}}$$

**Table 4.3.2**

<b>NET INTERST MARGIN</b>				
<b>Year</b>	<b>HDFC BANK</b>	<b>AXIS BANK</b>	<b>YES BANK</b>	<b>KOTAK MAHINDRA BANK</b>
<b>2010-2011</b>	3.8	2.7	2.11	4.12
<b>2011-2012</b>	3.63	2.8	2.19	3.82
<b>2012-2013</b>	3.94	2.83	2.23	3.83
<b>2013-2014</b>	3.75	3.11	2.49	4.24
<b>2014-2015</b>	3.79	3.07	2.56	3.98
<b>2015-2016</b>	3.89	3.2	2.76	3.58
<b>2016-2017</b>	3.83	3	2.69	3.78
<b>2017-2018</b>	3.76	2.69	2.47	3.59
<b>2018-2019</b>	3.87	2.71	2.57	3.6
<b>2019-2020</b>	3.67	2.75	2.63	3.74
<b>2020-2021</b>	3.71	2.93	2.71	4
<b>MEAN</b>	3.79	2.89	2.49	3.84
<b>STD DEV</b>	0.09448425	0.181769084	0.222387868	0.22028494
<b>DF</b>	1,4			
<b>ANOVA F-VALUE</b>	51.04493795			
<b>P</b>	0.002030261			

**Source: Author's Calculation**

Highest Mean Value is showcased by Kotak Mahindra Bank of 3.84 and it showcases a standard deviation of 0.22. Comparatively HDFC has a mean value 3.79 but has the lowest standard deviation of 0.09.

The P Value for net interest margin is 0.002.

**C) Capital Adequacy Ratio:** Capital Adequacy Ratio measures the availability of capital with the bank against the risk weighted credit exposure. The purpose is to establish the fundamentals that the banks have sufficient amount of capital to handle any kind of losses

before coming down to the verge of insolvency. It is assumed that high capital adequacy is considered to be above the requirement of suggestive solvency. Capital is classified into two broad categories- Tier I being Equity capital and Disclosed reserves

Whereas Tier II capital is the Supplemental Capital held as a part of bank reserves.

Capital Adequacy Ratio is calculated as follows:

$$\text{CAPITAL ADEQUACY RATIO} = \frac{\text{TIER I CAPITAL} + \text{TIER II CAPITAL}}{\text{RISK WEIGHTED ASSETS}}$$

RISK WEIGHTED ASSETS

**Table-4.3.3**

CAPITAL ADEQUACY RATIO				
YEAR	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
<b>2010-2011</b>	16.22	12.65	16.5	19.92
<b>2011-2012</b>	16.52	13.66	17.9	17.52
<b>2012-2013</b>	16.8	17	18.3	16.05
<b>2013-2014</b>	16.07	16.07	14.4	18.83
<b>2014-2015</b>	16.79	15.09	15.6	17.17
<b>2015-2016</b>	15.53	15.29	16.5	16.34
<b>2016-2017</b>	14.55	14.95	17	16.77
<b>2017-2018</b>	14.82	16.57	18.4	18.22
<b>2018-2019</b>	17.11	15.84	16.5	17.45
<b>2019-2020</b>	18.52	17.53	8.46	17.89
<b>2020-2021</b>	18.79	19.12	17.47	22.26
<b>MEAN</b>	16.52	15.80	16.09	18.04
<b>STD DEV</b>	1.33025561	1.79196591	2.793672396	1.784941557
<b>DF</b>	1,4			
<b>ANOVA F-VALUE</b>	347.7611302			
<b>P</b>	0.00005			

**Source: Author's Calculation**

Table 4.3.3 shows that maximum mean value is showcased by KOTAK MAHINDRA BANK of 18.04 with a standard deviation of 1.78, where as the minimum standard deviation is depicted by HDFC Bank as 1.33.

The P Value of the Capital Adequacy Ratio of Banks is 0.0005.

D) **Net Non Performing Assets Ratio:** Net Non Performing Assets is usually a term used by the banks to indicate Non Performing Loans less of provisions of poor and uncertain debts. Net Non Performing Assets Ratio is calculated as follows:

$$\text{NET NON PERFORMING ASSETS RATIO} = \frac{\text{GROSS NON PERFORMING ASSETS}}{\text{PROVISIONS}}$$

**Table 4.3.4**

NET NON PERFORMING ASSETS RATIO				
YEAR	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
2010-2011	0.19	0.29	0.03	0.72
2011-2012	0.18	0.27	0.05	0.61
2012-2013	0.2	0.36	0.01	0.64
2013-2014	0.27	0.44	0.05	1.08
2014-2015	0.25	0.46	0.12	0.92
2015-2016	0.28	0.74	0.29	1.06
2016-2017	0.33	2.27	0.81	1.26
2017-2018	0.4	3.64	0.64	0.98
2018-2019	0.39	2.2	1.86	0.75
2019-2020	0.36	1.62	5.03	0.71
2020-2021	0.4	1.06	5.88	1.21
MEAN	0.30	1.21	1.34	0.90
STD DEV	0.0852483	1.096715758	2.11359926	0.23087974
DF	1,4			
ANOVA F-VALUE	0.000125539			
P	0.991596921			

Source: Author's Calculation

Table 4.3.4 shows highest mean value earned by Yes Bank of 1.34 with a high standard deviation of 2.11 and the lowest standard deviation is shown by HDFC Bank at 0.085. The P Value of Net Non Performing Assets Ratio of 0.99.

Since out of 4 ratios under the Financial Perspective, 3 of them show a P Value of less than 5% significant level, it can be therefore concluded that Financial Parameters have a significant impact on the overall performance of the New Generation Banks.

**2) Customer Satisfaction Perspective:** Under this specific perspective, the banks focus on the requirement of the customers and how exactly they satisfy their requirements.

The ratios considered under this perspective are as follows:

- Market Share in Deposits
- Ratio of Marketing expenses to Volume of Business
- Ratio of Priority Sector Advances to Total Advances.

A **Market Share in Deposits:** This ratio depicts the ratio of deposits of the sample new generation bank in totality to the total deposits available. The same is calculated as follows:

$$\text{MARKET SHARE IN DEPOSIT} = \frac{\text{TOTAL DEPOSIT OF NEW GENERATION BANK}}{\text{TOTAL DEPOSIT OF ALL NEW GENERATION}} * 100$$

Table 4.3.5

<b>MARKET SHARE IN DEPOSITS</b>				
YEAR	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
<b>2010-2011</b>	2.354	2.135	0.518	0.003
<b>2011-2012</b>	2.518	2.247	0.502	0.004
<b>2012-2013</b>	3.088	2.633	0.698	0.005
<b>2013-2014</b>	3.176	2.429	0.641	0.005
<b>2014-2015</b>	2.851	2.039	0.577	0.005
<b>2015-2016</b>	2.781	1.822	0.569	0.007
<b>2016-2017</b>	3.325	2.141	0.738	0.008
<b>2017-2018</b>	4.203	2.417	1.070	0.010
<b>2018-2019</b>	4.238	2.518	1.045	0.010
<b>2019-2020</b>	4.196	2.341	3.853	0.952
<b>2020-2021</b>	5.994	3.176	7.316	1.252
<b>MEAN</b>	3.520	2.354	1.593	0.206
<b>STD DEV</b>	1.06119144	0.35726727	2.12838765	0.44828389
<b>DF</b>	1,4			
<b>ANOVA F- VALUE</b>	0.227211711			
<b>P</b>	0.658470684			

Source: Author's Calculation

Table 5.3.5 shows the highest mean value with HDFC Bank of 3.52 with a standard deviation of 1.06, Lowest standard deviation is shown by AXIS Bank of 0.35 even though it has a mean value of 2.35.

The P Value for the same is 0.658.

**B) Ratio of Marketing Expenses to Volume of Business:** This ratio basically talks about the factoring the aspect of marketing expenses being converted in value for money.

This may be calculated as follows:

$$\text{RATIO OF MARKETING EXPENSES TO VOLUME OF BUSINESS} = \frac{\text{MARKETING EXPENSES}}{\text{TOTAL ADVANCES}}$$

**Table 4.3.6**

<b>RATIO OF MARKETING EXPENSES TO VOLUME OF BUSINESS</b>				
Year	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
<b>2010-2011</b>	0.0099352	0.0055485	0.0060055	0.0150027
<b>2011-2012</b>	0.0078028	0.0051924	0.0027058	0.0144261
<b>2012-2013</b>	0.0076810	0.0060746	0.0068528	0.0146174
<b>2013-2014</b>	0.0047380	0.0041707	0.0107217	0.0144800
<b>2014-2015</b>	0.0051292	0.0032221	0.0093041	0.0127302
<b>2015-2016</b>	0.0053465	0.0026077	0.0085068	0.0083955
<b>2016-2017</b>	0.0026600	0.0034936	0.0075961	0.0071925
<b>2017-2018</b>	0.0025097	0.0034947	0.0047122	0.0065117
<b>2018-2019</b>	0.0019205	0.0020577	0.0026844	0.0058084
<b>2019-2020</b>	0.0009853	0.0019697	0.0015998	0.0000005
<b>2020-2021</b>	0.0008428	0.0013037	0.0021763	0.0000004
<b>MEAN</b>	0.005	0.004	0.006	0.009
<b>STD DEV</b>	0.00302434	0.001556319	0.003152186	0.00568301
<b>DF</b>	1,4			
<b>ANOVA F-VALUE</b>	<b>4.146</b>			
<b>P</b>	<b>0.025</b>			

**Source: Author's Calculation**

The highest mean under the Ratio of Marketing expenses to Volume of Business is shown by Kotak Mahindra Bank of 0.009 and a standard deviation of 0.0056. Lowest standard deviation in this head is shown by AXIS Bank of 0.0015. The P Value in the said case is 0.025.

**C) Ratio of Priority Sector Advances to Total Advances:** This ratio depicts the proportion of the Banks preference of investing in the priority sector. The more the banks invest in the priority sector higher will be the probability of development in that sector. The ratio of priority sector advances to total advances is calculated as follows:

$$\text{RATIO OF PRIORITY SECTOR ADVANCES TO TOTAL ADVANCES} = \frac{\text{PRIORITY SECTOR ADVANCES}}{\text{TOTAL ADVANCE}} * 100$$

**Table 4.3.7**

<b>RATIO OF PRIORITY SECTOR ADVANCES TO TOTAL ADVANCES</b>				
<b>YEAR</b>	<b>HDFC BANK</b>	<b>AXIS BANK</b>	<b>YES BANK</b>	<b>KOTAK MAHINDRA BANK</b>
<b>2010-2011</b>	48.08	28.99	26.3	29.79
<b>2011-2012</b>	49.70	28.56	25.92	31.47
<b>2012-2013</b>	49.58	24.62	22.39	28.92
<b>2013-2014</b>	45.61	27.28	26.18	33.86
<b>2014-2015</b>	44.56	24.82	25.08	30.98
<b>2015-2016</b>	44.28	24.09	27	34.84
<b>2016-2017</b>	43.37	25.16	22.06	35.8
<b>2017-2018</b>	41.02	22.43	21.94	34.93
<b>2018-2019</b>	39.65	24.03	22.33	35.14
<b>2019-2020</b>	38.64	25.18	27.47	33.37
<b>2020-2021</b>	36.32	29.53	29.97	40.4
<b>MEAN</b>	43.710	25.881	25.149	33.591
<b>STD DEV</b>	4.45052923	2.33207399	2.65406652	3.235699166
<b>DF</b>	1,4			
<b>ANOVA F-VALUE</b>	88.10127046			
<b>P</b>	0.000717824			

Source: Author's Calculation



Highest mean value here is that of HDFC Bank with a value of 43.71 and a standard deviation of 4.45. The lowest standard deviation was showcased by Axis bank as 2.33. The P value of the ratio is 0.0007.

Therefore it has been found that out of 3 ratios in two of them P value is less than 0.05 therefore it can be concluded that customer satisfaction level does have a significant impact on the Overall Performance of the New Generation Banks.

**3)Internal Business Process Perspective:** This perspective basically aims at figuring out the processes which the organization should maintain to excel. In the current study the following ratio's are duly taken into consideration.

- **Cost to Income Ratio**
- **Business Per Employee Ratio**
- **Profit per Employee ratio.**

**A)Cost to Income Ratio:** This ratio focuses on the proportion of cost and income in the banking organization. The formula to calculate the same is as follows:

$$\text{COST TO INCOME RATIO}=\text{OPERATING COST}/\text{OPERATING INCOME}$$

**Table 4.3.8**

<b>COST TO INCOME RATIO</b>					
<b>Year</b>	<b>HDFC BANK</b>	<b>AXIS BANK</b>	<b>YES BANK</b>	<b>KOTAK BANK</b>	<b>MAHINDRA</b>
<b>2010-2011</b>	0.481	0.427	0.363	0.540	
<b>2011-2012</b>	0.497	0.447	0.377	0.526	
<b>2012-2013</b>	0.496	0.426	0.384	0.506	
<b>2013-2014</b>	0.456	0.408	0.394	0.497	
<b>2014-2015</b>	0.446	0.407	0.413	0.521	
<b>2015-2016</b>	0.443	0.385	0.409	0.575	
<b>2016-2017</b>	0.434	0.410	0.414	0.484	
<b>2017-2018</b>	0.410	0.473	0.402	0.473	
<b>2018-2019</b>	0.397	0.454	0.435	0.474	
<b>2019-2020</b>	0.386	0.425	0.361	0.469	
<b>2020-2021</b>	0.363	0.417	0.538	0.413	
<b>MEAN</b>	0.437	0.425	0.408	0.498	
<b>STD DEV</b>	0.04450529	0.02471583	0.04860486	0.04308053	
<b>DF</b>	1,4				
<b>ANOVA F-VALUE</b>	203.1961646				
<b>P</b>	0.000140671				

Source: Author's Calculation

The current study shows a high mean value of 0.498 in Kotak Mahindra Bank with a standard deviation of 0.043 and the lowest standard deviation is shown by 0.024.

The P value of the same is 0.00014

**B)Business Per Employee**-This depicts the business volume generated by the business on the per employee basis.

The same is calculated as follows:

$$\text{BUSINESS PER EMPLOYEE} = \frac{\text{TOTAL REVENUE}}{\text{AVERAGE NUMBER OF EMPLOYEES}}$$

Table 4.3.9

<b>BUSINESS PER EMPLOYEE</b>				
Year	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
2010-2011	6.611	12.546	20.438	5.326
2011-2012	6.691	12.284	15.445	6.468
2012-2013	7.760	11.862	16.224	7.370
2013-2014	9.834	12.046	14.753	7.006
2014-2015	10.700	14.291	15.423	7.835
2015-2016	1.547	13.897	13.995	8.192
2016-2017	14.209	13.908	13.671	6.671
2017-2018	16.397	14.984	22.166	7.247
2018-2019	17.770	16.843	22.195	10.336
2019-2020	18.305	16.341	12.049	9.645
2020-2021	20.550	16.998	14.811	9.744
MEAN	11.852	14.182	16.470	7.804
STD DEV	6.00808268	1.915890227	3.49827692	1.55116095
DF	1,4			
ANOVA F-VALUE	0.094007708			
P	0.027444018			

**Source: Author's Calculation.**

The highest mean value is depicted by YES Bank of 16.47 and a standard deviation of 3.49. Lowest standard deviation was depicted by Kotak Mahindra Bank of 1.55.

The P value for the current ratio is 0.027.

**C)Profit Per Employee**-This ratio is depicts the proportion of profit earned by each employee .

The formula to calculate the same is as follows:

$$\text{PROFIT PER EMPLOYEE}=\text{NET PROFIT}/\text{TOTAL NUMBER OF EMPLOYEES}$$

Table 4.3.10

<b>PROFIT PER EMPLOYEE</b>				
Year	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
2010-2011	7.040	12.820	2.090	7.440
2011-2012	7.820	13.370	2.040	9.040
2012-2013	9.740	13.670	2.010	10.080
2013-2014	12.440	14.660	2.050	9.390
2014-2015	13.390	17.420	2.100	10.370
2015-2016	14.040	16.400	2.100	6.650
2016-2017	17.250	6.500	2.000	7.750
2017-2018	19.810	0.460	2.300	8.170
2018-2019	21.490	7.550	0.890	11.650
2019-2020	22.440	2.400	-7.340	11.880
2020-2021	25.910	8.410	-1.510	13.470
MEAN	15.579	10.333	0.794	9.626
STD DEV	6.27423693	5.64663279	2.913788849	2.106814053
DF	1,4			
ANOVA F-VALUE	0.000565647			
P	0.982164599			

**Source: Author's Calculation**

The highest mean value is depicted by HDFC Bank as 15.57 with a standard deviation of 6.27. The lowest standard deviation is shown by Kotak Mahindra Bank at 2.10.

The P Value of the said ratio is 0.98.

In the current section ,it is found that out of the 3 ratios 2 have a significance value of less than 5%,hence it may be concluded that Internal Business Process Perspective has a significant effect on the overall performance of New Generation Bank.

**4.Learning & Growth Perspective**-This perspective focuses on the learning and development of the employees and the opportunities available for the employees to grow and evolve.

The ratios to consider under the same are as follows:

- **Number of Automated Teller Machines**
- **Number of Skilled Employees**
- **Ratio of Wage Bills to Total Income**

A) **Number of Automated Teller Machine**-This perspective basically talks on the lines of number of ATM's made available to the customers of their ease of access.

**Table 4.3.11**

<b>NUMBER OF ATM'S</b>				
Year	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
<b>2010-2011</b>	5.471	6.27	0.25	0.71
<b>2011-2012</b>	8.913	9.924	0.606	0.848
<b>2012-2013</b>	10.743	11.245	0.951	0.961
<b>2013-2014</b>	11.256	12.922	1.139	1.103
<b>2014-2015</b>	11.766	12.355	1.194	1.93
<b>2015-2016</b>	12	12.28	1.205	2.032
<b>2016-2017</b>	12.26	14.163	1.8	2.163
<b>2017-2018</b>	12.365	13.814	1.724	2.199
<b>2018-2019</b>	13.16	16.7	1.45	2.352
<b>2019-2020</b>	14.901	17.477	1.423	2.519
<b>2020-2021</b>	15.756	11.333	1.34	2.598
<b>MEAN</b>	11.6900909	12.5893636	1.18927273	1.765
<b>STD DEV</b>	2.78134919	3.08946514	0.45675575	0.71349996
<b>DF</b>	1,4			
<b>ANOVA F-VALUE</b>	0.979049922			
<b>P</b>	0.378445804			

**Source: Author's Calculation**

The highest mean value is shown by Axis Bank as 12.58 with a high standard deviation of 3.089. The lowest standard deviation is shown by 0.45 by YES Bank. The P value for the same is 0.37

B) **Number of Skilled Employees**-This aspect talks on the lines of the skill base of the employees

Table 4.3.12

<b>NUMBER OF SKILLED EMPLOYEES (In Ten Thousands)</b>				
Year	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
<b>2010-2011</b>	5.5752	2.6435	0.3911	2.05
<b>2011-2012</b>	6.6076	3.1738	0.5642	2.2
<b>2012-2013</b>	6.9065	3.7901	0.7024	2.35
<b>2013-2014</b>	6.8165	4.242	0.8798	2.67
<b>2014-2015</b>	7.6286	4.223	1.081	3.14
<b>2015-2016</b>	8.7555	5.0135	1.5	4.2
<b>2016-2017</b>	8.4325	5.6617	2.0125	4.4
<b>2017-2018</b>	8.8253	5.9614	1.8238	5
<b>2018-2019</b>	9.8061	6.194	2.1136	6
<b>2019-2020</b>	11.6871	7.414	2.2973	7.1
<b>2020-2021</b>	12.0093	7.83	2.227	7.3
<b>MEAN</b>	8.45910909	5.104272727	1.417518182	4.21909091
<b>STD DEV</b>	2.06408186	1.674362565	0.716599179	1.93508374
<b>DF</b>	1,4			
<b>ANOVA F-VALUE</b>	4.354			
<b>P</b>	0.023			

**Source: Author's Calculation.**

The highest mean value is been showcased by HDFC Bank at 8.45 with a standard deviation value of 2.064. The lowest standard deviation is depicted by Yes Bank at 0.71.

The P value of the same is 0.023.

C) **Ratio of Wage Bills to Total Income**-This ratio explains the relationship between the amount expended for wages from the total income.

This ratio is calculated as follows:

$$\text{RATIO OF WAGE BILLS TO TOTAL INCOME} = \text{WAGE BILLS} / \text{TOTAL INCOME}$$

Table 4.3.13

<b>RATIO OF WAGE BILLS TO TOTAL INCOME</b>				
Year	HDFC BANK	AXIS BANK	YES BANK	KOTAK MAHINDRA BANK
<b>2010-2011</b>	11.69	8.16	7.77	15.77
<b>2011-2012</b>	10.1	7.59	6.63	12.61
<b>2012-2013</b>	9.46	7.05	6.86	11.68
<b>2013-2014</b>	8.52	6.84	6.7	11.53
<b>2014-2015</b>	8.27	7.1	7.19	12.48
<b>2015-2016</b>	8.03	6.7	7.98	14.83
<b>2016-2017</b>	7.95	6.92	8.77	13.07
<b>2017-2018</b>	7.13	7.6	8.59	12.4
<b>2018-2019</b>	6.66	6.97	7.22	11.15
<b>2019-2020</b>	6.9	6.81	6.86	12.11
<b>2020-2021</b>	7.1	7.85	10.39	11.66
<b>MEAN</b>	8.34636364	7.23545455	7.723636364	12.66272727
<b>STD DEV</b>	1.54133885	0.48351554	1.153119879	1.430783638
<b>DF</b>	1,4			
<b>ANOVA F-VALUE</b>	21.72248265			
<b>P</b>	0.009584279			

Source: Author's Calculation

The highest mean value is shown by 12.66 by Kotak Mahindra Bank with a standard deviation of 1.43 and the lowest standard deviation is shown by Axis Bank as 0.48. The P value of the said ratio is 0.009.




In the current perspective two out of three ratios have a P value of less than 0.05, it may therefore be concluded that Learning and Growth Perspective have a significant impact on the overall performance of New Generation Banks.

**Table 4.3.14**

<b>BALANCED SCORE CARD STRUCTURE:</b>				
<b>BANK</b>	<b>Financial Perspective</b>	<b>Customer Satisfaction Perspective</b>	<b>Internal Business Perspective</b>	<b>Learning &amp; Growth Perspective</b>
<b>HDFC BANK</b>				
<b>AXIS BANK</b>				
<b>KOTAK MAHINDRA BANK</b>				
<b>YES BANK</b>				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

Table 4.3.13 shows that apart from the Financial Perspective, Customer Satisfaction Perspective, Internal business Perspective & Learning and Growth Perspective equally have a significant impact on the Overall Performance of the New Generation Bank: Hence- the second Null Hypothesis –

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**Is Rejected**

#### 4.4 FACTORS PROMINENTLY EFFECTING THE PERFORMANCE OF NEW GENERATION BANKS:-

From the above framework used ,if we determine a stage wise analysis we would find that in every parameter there are certain prominent factors and certain non prominent factors that determine the performance of New Generation Banks.

**Table 4.4.1**

##### **Financial Factors Effecting the Performance of New Generation Bank**

FINANCIAL PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Credit Deposit Ratio				
Net Interest Margin				
Capital Adequacy Ratio				
Net Non Performing Asset Ratio				



Significant contributor in Overall Performance of New Generation Bank



Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

From Table 4.4.1 it can be concluded that the following factors play a prominent role in determining the overall performance of New Generation Bank-The total amount of Deposit


and Advances issued and taken by the NGB's, Interest Earned, Interest Expended, Capital Adequacy status .

**Table 4.4.2**

**Customer Satisfaction Factors Effecting the Performance of New Generation Bank**

CUSTOMER SATISFACTION PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Market Share in Deposits				
Ratio of Marketing Expenses Volume of Business				
Ratio of Priority Sector Advances to Total Advances				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

Table 4.4.2 speaks about the factors effecting the Overall Performance from the customers satisfaction Perspectives. It was deduced that Ratio of Marketing Expense to Volume of Business and Ratio of Priority sector Lending to total advances are the contributing factors from the customer satisfaction perspective.


**Table 4.4.3**

**Internal Business Process Factors Effecting the Performance of New Generation**

**Bank**

INTERNAL BUSINESS PROCESS PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Cost to Income Ratio				
Business per Employee				
Profit per Employee				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**


From Table 4.4.3 it was concluded that the Ratio between Cost to Income and Business per employee were the contributing factors towards the overall performance from the Internal Business Process Perspective.

**Table 4.4.4**

**Learning & Growth Factors Effecting the Performance of New Generation Bank**

LEARNING & GROWTH PERSPECTIVE	HDFC BANK	AXIS BANK	KOTAK MAHINDRA BANK	YES BANK
Number of ATM's				
Number of Skilled Employees				
Ratio of Wage Bills to Total Income				

 Significant contributor in Overall Performance of New Generation Bank

 Non Significant contributor in Overall Performance of New Generation Bank

**Source: Author's Calculation**

From table 4.4.4 it has been found that Number of Skilled Employees and Ratio of Wage Bills are the most contributing factor under Learning & Growth Perspectives.

Therefore through the above analysis :

**H<sub>03</sub>**- There is no significant correlation of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

**Is Rejected**

## **4.5 CUSTOMER PERCEPTION ANALYSIS OF NEW GENERATION BANKS.**

Customer perception is a general customer perspective, thought, awareness and feelings about the company and its product and service offerings. Customer feedback is also called customer feedback. Customer perspective refers to the process by which a customer selects, organizes, and interprets informative / dynamic inputs to create a meaningful product or product image in a variety of categories.

### **4 Categories of Customer Vision**

Customer Visualization is a three-stage process that translates crude motives into meaningful information.

Each person interprets the meaning of encouragement in a way that is consistent with their different biases, needs and expectations. Three stages of visual acuity, attention, interpretation and memory

#### **1. Exposure**

Exposure includes elements such as colors, logo, sound, ambience that a customer acquires when interacting with a product or product. When we see a certain color and taste a unique taste it can get our attention that makes the second stage.

#### **2. Attention**

Attention arises from the image when the exposure phase ends and the customer recognizes the message and product being marketed. If attention is given to a positive experience, it may enter the translation phase.

### **3. Translation**

Interpretation is the way a customer shares the meaning or value of an input and information in the first 2 stages of customer perception. It can lead to comparisons with other similar products or similar experiences in the past. All in all the customer gives some meaning to what is being done with the product.

### **4. Maintenance**

Now the final stage is where the customer remembers the interaction of future indicators by keeping it in memory. This means that the customer's opinion is already formed. It may be positive or negative as well.

#### **4.5.1 IMPORTANCE OF CUSTOMER PERCEPTION**

Customer perception is very important to companies or companies as they tell themselves what their potential customers are thinking about. It is very important because when a customer creates a negative impression no work is done on the product or product that will improve sales. Companies need to always know how the customer sees them in order to adjust the stand or offer to ensure that the product image and identity are aligned.

Also, it is very important as often the customer perspective stays in the minds of the consumers for a long time and can sometimes be permanent as well. First Customer Ideas needs to be positive as that will lead to future product scope. The negative image of the product affects the overall customer perception of the bottom line. Customer perspective can be enhanced by following the customer vision cycle as outlined below as a fresh start to what customers see and expect from the product / service offered by the organization.

Customer Visibility applies equally to previous sales and after-sales customer visits. Sometimes poor customer service after a sale can affect perception and cause a downturn in business. Unscrupulous sales and marketing can cause a negative impression even before it is sold. Customer Vision Management is one of the most important tasks for a company that seeks to deliver and maintain a great framework.

#### Creating and Developing a Customer Vision

Creating customer feedback is a careful process done with customers to create the desired customer perspective

1. Customer Survey
2. Response Analysis and Customer Travel Planning
3. Development of strategies to create a vision
4. Reach customers with redefined / modified messages

#### **4.5.2 ANALYZING THE PERCEPTION OF THE CUSTOMERS OF SAMPLE NEW GENERATION BANK-**

Customer Perception about the sample new generation banks were categorized on different criteria and the responses of the respondents were recorded.

Perception of the respondents were categorized on the following pointers:

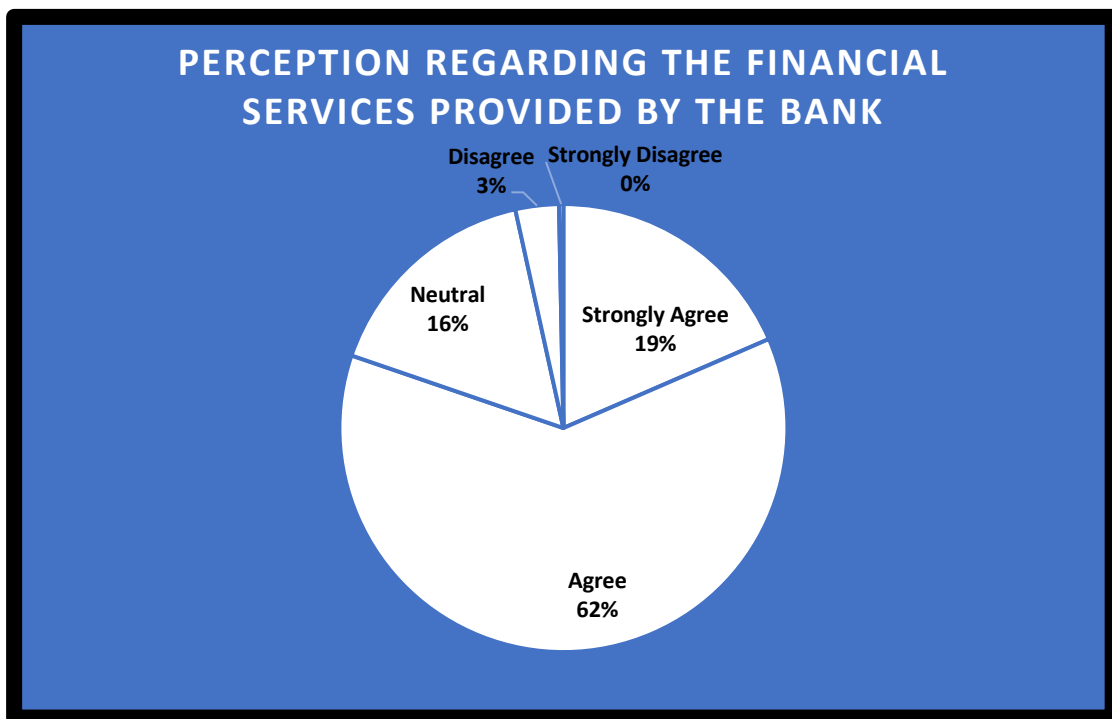
- A. Perception on the Financial Services Provided by the bank**
- B. Perception on the Staff Support provided by the bank**
- C. Perception on the Environment of the Bank**
- D. Perception on the Internal Process of the Bank**
- E. Perception on the Overall Performance of the Bank**



### A. Perception on the Financial Services Provided by the bank-

Jignesh Valand in his study “A Study on Perception of Bank Customers towards Financial Services Quality in Selected Cities of Gujarat” stated that it was necessary for the banks to evolve themselves in order to ensure that the customers are provided top notch financial services.

Fig 4.5.1



Source: Author's Calculation

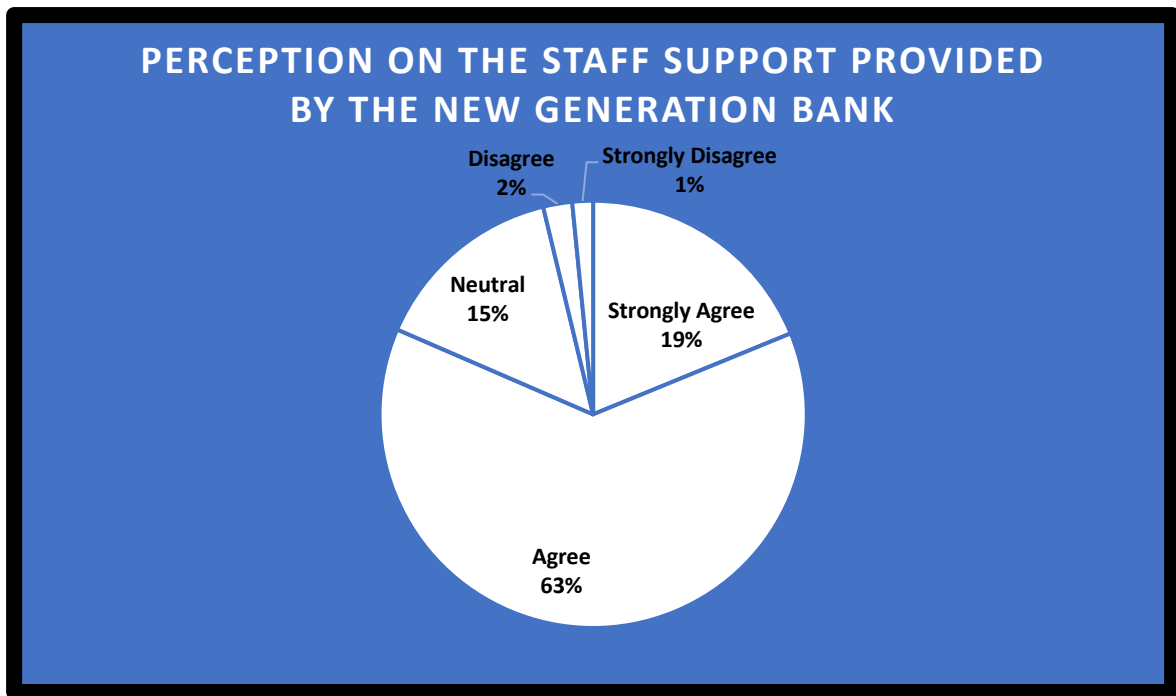
Fig 4.5.1 explains the responses on the perception of the respondents regarding the financial services provided by the new generation bank. The responses were analyzed on the basis of variety of questions -Are they satisfied with the financial knowledge provided by the banks, Are they satisfied with the financial facility provided by the bank etc.

Through the above figure it is found that 19% respondents strongly agree that they are highly satisfied with the services provided by the new generation bank.62% respondents agree on their satisfaction level with the services provided by the New Generation Bank.16% respondents were neutral ,3% respondents disagree with the services that were provided. Through the above responses it can be concluded that the respondents are satisfied with the Financial services provided by the New Generation Banks.

**B. Perception on the Staff Support provided by the bank:-**

Adefulu, A., & van Scheers, L. (2016). Consumer perceptions of banking services: Factors for bank’s preference in their study stated that how the perception of the customers effect the choice of banks the customers adopt.

**Fig 4.5.2**



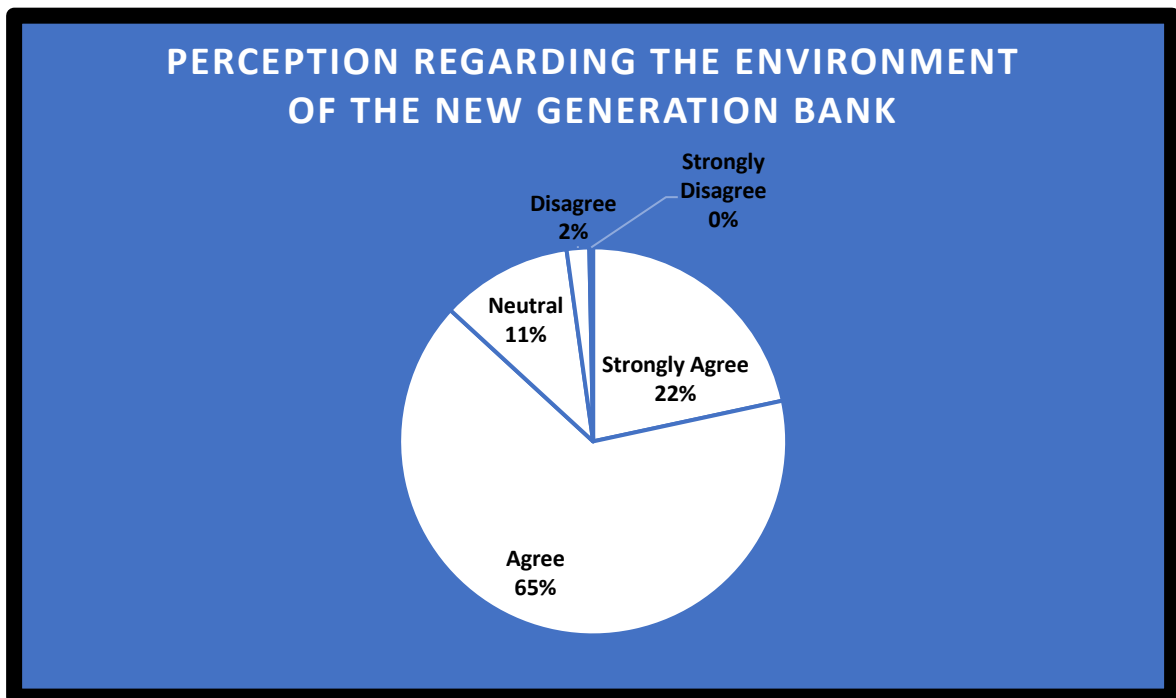
**Source: Author’s Calculation**

19% of the respondents strongly agree that they are satisfied with the staff support ,63% of the respondents agree that they are satisfied with the staff support services provided,15% respondents were neutral to the services provided. Whereas 2% disagree were not happy with the staff services provided and 1% strongly disagree with staff support provided by the .It can hence be concluded that the customers of sample New Generation Banks are satisfied with the staff support provided by the bank.

### C. Perception on the Environment of the Bank :-

Shalu Katyal & Dr Shefali Nagpal in their paper Role of Green Banking in sustainable development in India stated in their paper that the essence of sustainability of new generation banks depends upon the green banking practices they follow.

**Fig 4.5.3**



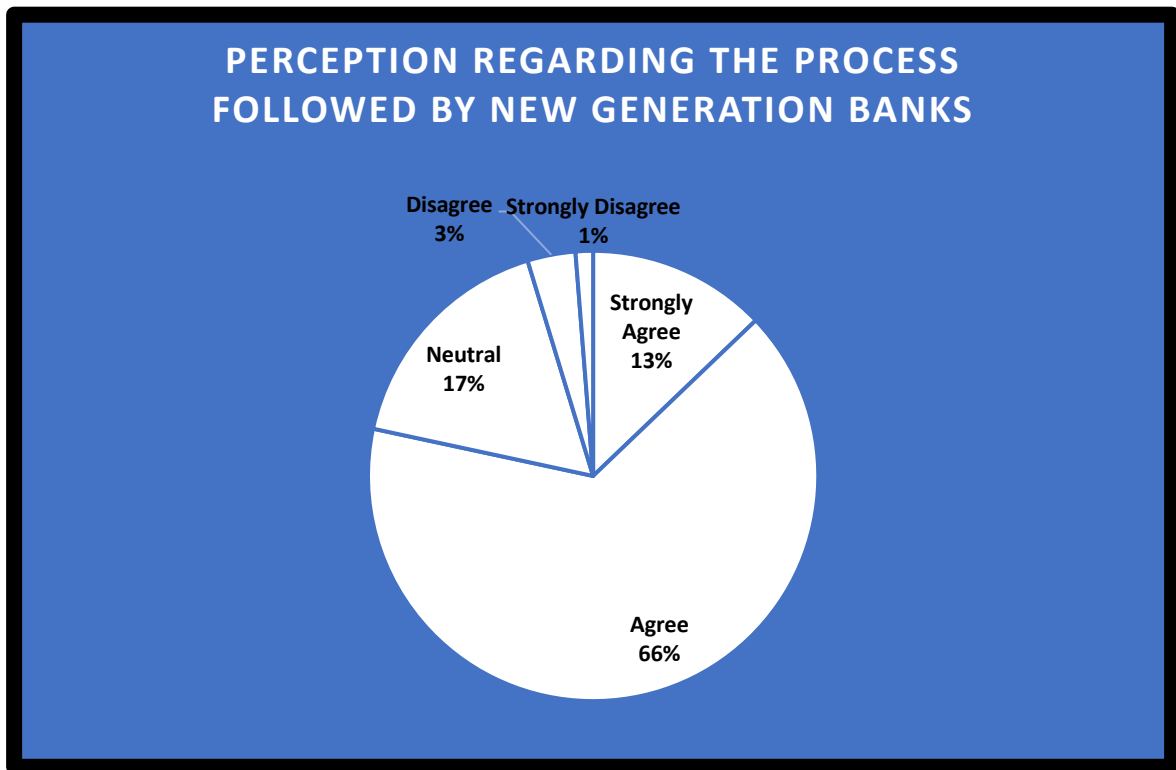
**Source: Author's Calculation**

22% of the respondents strongly agree that their New Generation Banks follow green banking practices. 65% respondents agree to the same where as 11% of the respondents are neutral. Only 2% of the respondents did not agree that their banks did follow green banking practices.

**D. Perception on the Internal Process of the Bank-**

INTERNAL ENVIRONMENT AND PROFITABILITY OF BANKS: THE TERMINAL BENEFITS NEXUS A study by Anthony Nzeribe Chizue Nwaubani PhD, FCA, ACIB studied the correlation between the essence of Internal Environment impacting the profitability of the banks in Sub Saharan.

**Fig 4.5.4**



Source: Author's Calculation

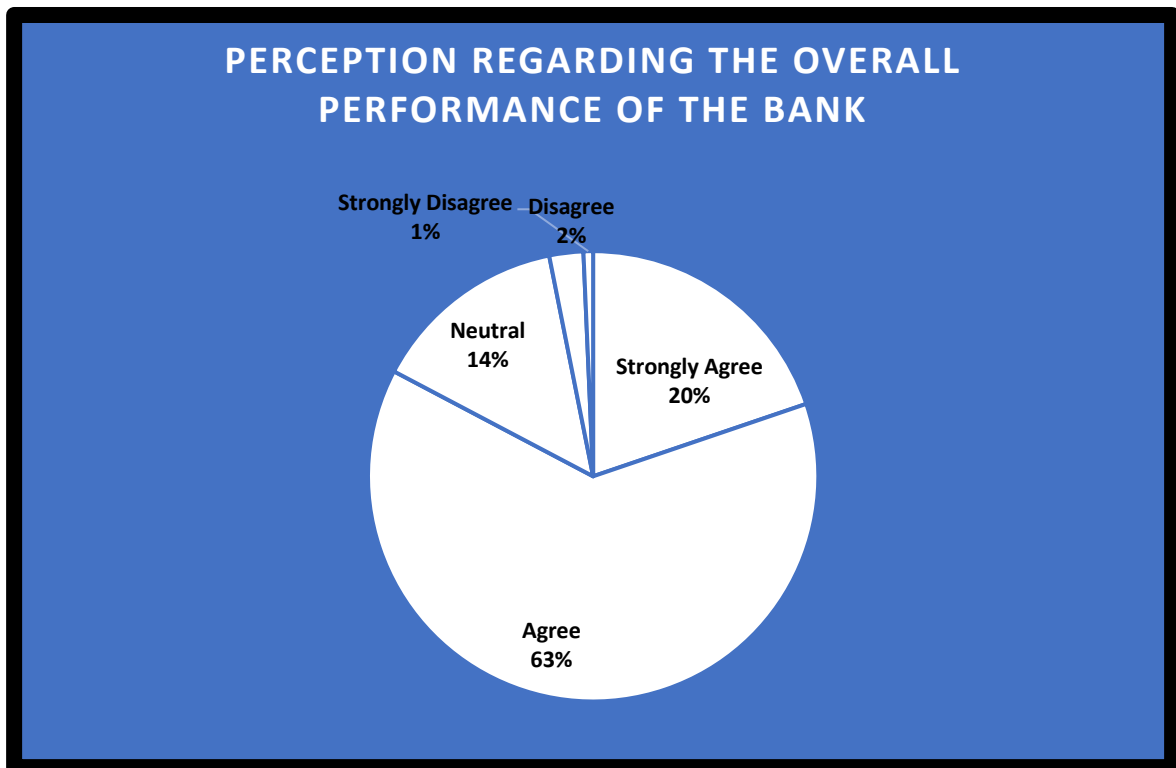
Fig 4.5.4 states that 13% of the respondents strongly agree that their New Generation Banks have a systematic Internal Process with which they are satisfied.66% of the respondents agree to the same whereas 17% have a neutral stand.3% of the respondents disagree with the satisfaction level of the Internal Process services provided by the New Generation Bank & 1% strongly disagree with the fact.

Hence it can be safely concluded that the customers of the sample new generation banks are satisfied with the Internal Process of the sample new generation banks.

### E. Perception on the Overall Performance of the Bank

To access the overall perception of the New Generation Banks a cumulation of all the responses were taken into account to analyze the impact of the perception of the customers on the overall performance of the New Generation Banks.

**Fig 4.5.5**



Source :Author's Calculation

From the above figure ,it is clear that 20 % of the respondents strongly agree & 63% respondents agree that they are satisfied with the overall performance of the Sample New Generation Banks .Whereas 14% of the respondents held a neutral position regarding their preference ,where 2% respondents disagree with the overall performance of the New Generation Bank & 1 % strongly disagree with the overall performance of the New Generation Bank.

## **CHAPTER V**

## **CONCLUSION**

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### **CONCLUSION**

The Indian banking sector has undergone major changes following the reform of the banking sector. Major changes have taken place in the structure of the bank, operations, part of the business, a workplace that includes the use of a banking system and Other deliveries channels. The advent of the new generation of banks created competition and efficiency for operation of banks in India. Banks are established nationally where ownership is held by The Indian government has lost part of the market share due to tense marketing pressure by new private banks. The recent economic downturn has affected the quality of goods and profits of Indian banks. Emergence of digital banking and other innovations bank channels are the latest trends in the banking sector.

Profitability is a major problem for Indian banks. Changes in the banking sector, competitiveness, prudent asset management, Basel systems, banking system and high level of concentrated assets has contributed to the profitability of banks. Despite the evil above conditions for private banks, especially new private banks, to operate rather good. Private sector banks have recorded high levels of business growth, profits service delivery channels and digital banking over the past 20 years and research focused are helping Indian banks to improve their profits. Private Banks have an important role in the Indian Banking Sector. Private corporate banks show structure efficiency for their private ownership benefit.



## **5.1 Evolution of Indian Banking Industry**

First Generation Banking:

During the pre-independence period (until 1947), the Swadeshi Movement saw the birth of many small and domestic banks. Many of them fail miserably because of internal fraud, money laundering, and bankruptcy.

Second Generation Banking (1947-1967): Indian banks have facilitated the collection of resources (collected by sales deposits) in small business families or groups, thus ignoring the flow of debt in agriculture.

Third Generation Banking (1967-1991): Government succeeded in breaking the industrial-banking relationship by nationalizing 20 major private banks in two phases (1969 and 1980) and introducing significant industrial loans (1972). These initiatives have led to the transition from 'class banking' to 'mass banking'. In addition, there has been a positive impact on the expansion of branch networks throughout (rural) India, the significant promotion of public deposit and the increase in debt flow in agriculture and related sectors.

Fourth Generation Banking (1991-2014): This period underwent significant changes such as the issuance of new licenses to private and international banks to incorporate competitiveness, improved productivity and efficiency. This is done using the technology used; the introduction of smart practices; to provide operational flexibility consistent with operational independence; focusing on the implementation of best corporate governance practices; and the consolidation of financial base in line with the Basel system.

Current Model: Since 2014, the banking industry has seen the acceptance of the JAM (Jan-Dhan, Aadhaar, and Mobile) trinity, as well as the issuance of licenses to Payments Banks and Small Finance Banks (SFBs) financial.

## The Way Forward: Fifth Generation Banking

**Central Banks:** A report by the Narasimham Committee (1991), emphasized that India should have three or four major banks, both internal and external, as well as foreign banks. The second category could include a few medium-sized lenders, including niche banks, with a global economy. In line with these recommendations, the government has consolidated a number of PSBs, initiated measures to establish DFI, Bad Bank, etc.

**The Need for Different Banks:** Although the global banking model has become very popular, there is a need for niche banking to meet the specific and diverse needs of different clients and borrowers. In fact, these specialized banks will make it easier to access finance in areas such as RAM (stores, agriculture, MSMEs). In addition, proposed DFI / niche banks may be established as specialized banks to access affordable public deposits and better manage asset liabilities.

**Blockchain Banking:** Risk management can be further clarified and neo banks can use technology to promote (digital) investment and support the high growth of aspirational / new India. In this context, technologies such as Blockchain can be applied to Indian Banking. Blockchain technology will allow smart monitoring and control of banks to be easier.

**Reducing Ethical Risk:** To date, bank failures of state-owned enterprises have been a rare occurrence and a hidden royal guarantee is the main reason for high public confidence in banks. However, with PSB's secret driving, this may not always be true. Therefore, the fifth generation banking reforms should focus on the need for individual high deposit insurance and effective restructuring rules to reduce ethical and systemic risks at minimal cost to the public treasury.

**ESG Framework:** Various banks may also be encouraged to be listed on the known stock exchange and adhere to the ESG framework (Environment, Social Responsibility, and Governance) in order to create a larger number of participants over time.

Empowering Banks: Government should intensify loose ends by allowing them to create diversified loans, establish industry-wise regulators, and provide additional capacity to deal effectively with defaulting defaulters. There is also a need to open the way for the business bond market (transformation in a bank-led economy) to create a banking system that responds to a real dynamic economy.

## **5.2 Findings**

The current study aims to define a balanced relationship between the Financial and Non Financial Parameters and their effect on the overall performance of the New Generation Bank. The following are the findings of the study:-

### **Effect of the Demographic Profile on the Banking Performance:-**

- The study has 68% male respondents and 32% female respondents which has a further bank wise classification as well. Enav Friedmann, Oded Lowengart in their study –“The Effect of Gender Differences on the Choice of Banking Services” stated that banks usually have preferential treatment with the kind of gender involved in their banks ,but through further investigation it was discovered that in the current study ,Gender does not have any pivotal role.
- The study records responses of respondents who have varied age frame.16% of the world’s population belongs to the youth and if the banks fails to cater them, they shall be failing miserably. But analysis of the current study prove that age does not have any effect on the overall performance of the New Generation Bank.
- The study has respondents who are Higher Secondary, Graduate ,Post Graduate & Professionally qualified.

It can be said that when the respondents were filling their responses they knew what they were filling in, hence their responses can be considered as valid. But the study does not provide for any significant relation between Education and the performance of New Generation Bank.

- The study has recorded responses of customers earning between Rs 2,50,000 to more than Rs 7,50,000 but does not significantly impacts the performance of the New Generation Banks.

Hence it can be concluded that none of the Demographic parameters effect the Performance of the New Generation Banks.

### **Effect of Financial Parameters on the Overall Performance :-**

To study the impact of Financial Parameters on the Overall Performance of New Generation Banks we conducted a study using 15 ratio's. Each Ratio impacting the organization in someway or the other. The 15 ratio's were further categorized further into 3 categories of Profitability, Liquidity & Capital Adequacy post which we categorize and rank them on the basis of overall performance.

- On the basis of profitability, we find that HDFC Bank is the best performer ,followed by Kotak Mahindra Bank, then by AXIS Bank & Yes Bank.
- On the basis of liquidity ,HDFC Bank still is the ruler, but there is a tie for the second place between Kotak Mahindra Bank & Yes Bank and the last place is taken by Axis Bank.
- On the basis of Capital Adequacy, there is a reverse ranking top rank is bagged by Kotak Mahindra Bank followed by Yes Bank & Axis Bank. Shockingly the last place is held by HDFC bank

- On the basis of overall performance HDFC Bank hold the first position followed by Axis Bank & Yes Bank who had tied in for the second place and the last place was held by Yes Bank.
- Post the analysis of the ranks ,all the scores were taken into the analysis under the Friedman Analysis where we arrived at a P Value of 0.022 which is less than 5% significance level, which helps us prove that Financial Parameter does have a significant impact on the Overall Performance of the New Generation Bank.

### **Effect of Non Financial Parameters on the Overall Performance :-**

To study the Non Financial Parameters impacting the Overall Performance ,Balance Score Card was implemented where 4 kinds of perspectives were examined:-Financial, Customer Satisfaction, Learning & Growth & Internal business Processes.

Based on the same following conclusions were drawn:-

- Financial Perspectives examines the performance measurement using the following factors -Credit Deposit Ratio, Net Interest Margin Ratio, Capital Adequacy Ratio & Net Non Performing Assets. It was found that out of the 4 factors that 3 of them significantly effected the overall performance.
- Customer Satisfaction Perspective examines the performance measurement using the following factors-Market Share in Deposits, Ratio of Marketing Expenses to Volume of business & Ratio of Priority sector Lending. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks.

- Internal Business Process Perspectives examines the performance measurement using the following factors-Cost to Income Ratio, Business per employee & Profit per Employee. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks.
- Learning & Growth Perspectives examines the performance measurement using the following factors- Number of Automated Teller Machines, Number of Skilled Employees, Ratio of Wage Bills to Total Income. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks

It can thus be concluded that Non Financial Parameter does effect the Performance of New Generation Banks.

### **Factors Prominently effecting the Performance of New Generation Banks:-**

The following factors were identified as the most prominent factors effecting the Performance if New Generation banks:-

• Credit Deposit Ratio
• Net Interest Margin
• Capital Adequacy Ratio
• Ratio of Marketing Expenses Volume of Business
• Ratio of Priority Sector Advances to Total Advances
• Cost to Income Ratio
• Business per Employee
• Number of Skilled Employees
• Ratio of Wage Bills to Total Income

The above mentioned factors were identified scientifically based on the p value these factors have generated .It was found that all these factors had a p value of less than 5% significance level and hence a valid factor impacting the overall performance of New Generation Banks.

### **Effect of Consumer Perception on the Overall Perception of New Generation Banks:-**

Perception is the most decisive factor on deciding in which bank will the consumer will open his account and what do they perceive about these banks.

Perception Analysis of these New Generation Banks are further categorized into the following points:-

- A. Perception on the Financial Services Provided by the bank
- B. Perception on the Staff Support provided by the bank
- C. Perception on the Environment of the Bank
- D. Perception on the Internal Process of the Bank
- E. Perception on the Overall Performance of the Bank

Through the analysis of these factors it was concluded that the customers were satisfied with the level of services ,support and the environment these sample New Generation Banks have. These can also be taken as one of the reasons because of which the consumers have maintained their Brand Loyalty with their New Generation Bank.

### **5.3 Limitations:**

In our study we have considered only 4 New Generation Banks for a period study from 2010-2021,where we could have considered other Banks as well. Also the study records the responses for its analysis Pan India and it does not restrict to any specific area.

## 5.4 Research Contribution:

We have applied a new model to study the integrated approach of Financial & Non Financial Parameters effecting the Overall Performance .Previously studies have been conducted to study either of the factors but none of them have used a cumulative approach to arrive at the factors that effect the Overall Performance of the Sample New Generation Bank.

## 5.5 Suggestions:

The findings of the research have **rejected** all the hypothesis :

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**H<sub>03</sub>**- There is no significant impact of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

And it can be concluded that there is a significant impact of Financial & Non Financial Parameters on the Performance of the New Generation Bank.

Therefore the following suggestions, after a proper consultation with the stakeholders of the respected New Generation Banks can be recommended to the New Generation Banks:

- To keep the fundamentals intact
- To keep a check on the required BASEL Ratios to ensure the stability of the banks
- New Generation banks are gaining popularity majorly because of the customer service that they provide ,therefore to ensure the quality of the same is maintained.
- To take into consideration a holistic approach while framing the policy of the banks and not only the financial parameters to ensure maximum adaptability.



- To use the new edge technology to provide better services yet retain the banker customer relation to increase brand loyalty.

## **5.6 Way Forward:**

New Generation Banks have carved a pathway of customer friendly banking for its customers but by ensuring that their fundamentals are intact. Strict RBI compliance norms ensure that these New Generation Banks don't go haywire. Digitalization and Artificial Intelligence also play a main role in the development of these New Generation Banks. Although the banking sector has been around for a long time depending on technology and comprehensive data, The new data-enabled AI technology has four the ability to move forward with innovation as well faster than before. AI can help the better the efficiency, the more growth agenda, improve differentiation, manage risk and regulatory requirements, and of course influence customer feeling. Structure sophisticated AI programs once expensive, limiting key shipping use of conditions (e.g., high frequency trading).Deloitte's latest AI survey of IT and business executives of companies adopt AI technology and found that, from a technical point of view, cost and some adoption obstacles fall, too it becomes easier to do it again integrate AI technology. Organizations do what they set out to do investment in cloud-like, large areas data platforms, and data applications that use updated structures (e.g., microservices and event hubs), finishing key investment required especially development, supply, and rating AI solutions. However, many operational and organizational challenges stay, especially skills gaps as well AI integration is broad organization, to cite two examples

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Estd. Under Jharkhand State Private University Act

**Performance Analysis of New Generation Indian Banks for the First Two Decades of Millennial Era.**

Name of the Research Scholar-Ms. Priya Raman

Guide Name- Prof.(Dr.) Angad Tiwary,  
Director Campus, Dean-Student Welfare.

## QUESTIONNAIRE.

Name				
Phone No				
Email ID				
Gender	Male/Female			
Age	Less than 25	25-35	35-45	45 and above
Family Size				
Occupation	Service	Agriculture	Business	Other
Education Level	Higher Secondary	Under Graduate	Post Graduate	Others
Annual Income (Rs.)	Less than 250000	250000-500000	500000-750000	750000 and above
Caste	General	SC/ST	OBC	Others

Q.I have an account in-

- HDFC Bank Ltd
- Axis Bank Ltd
- Kotak Mahindra Bank.
- Indusland Bank
- Yes Bank
- Other- \_\_\_\_\_

Q. My purpose of Opening a Bank Account is-

- To save money
- To ensure safety for my money
- As a Proof of Identification
- To Avail Loans
- To avail credit/debit card facility
- As a Salary Account
- To avail Trading/Demat facility

The statements given below will measure Encircle the appropriate number at the right of each statement. The categorical variables are weighted on a scale of 5 where 5 is for agree and 1 is for disagree.

**1: Agree 2: Somewhat Agree 3: Can't Say 4: Somewhat Disagree 5: Disagree**

Sl No	Variables	New Generation Banks				
		1	2	3	4	5
Q.1	I know what New Generation Banks are-					
Q.2	I am satisfied with my bank.					
Q.3	I prefer new generation bank to other public sector banks.					
Q.4	I would refer my bank to my friends, relatives & colleagues					
<b>Financial Parameters</b>						
<b>1: Agree 2: Somewhat Agree 3: Can't Say 4: Somewhat Disagree 5: Disagree</b>						
1.	I am getting adequate financial service from my bank.					
2.	I get good return for my investments					
3.	I get loans at reasonable rate of interest					
4.	I get additional financial services at my bank that fulfills my financial needs.(Demat facility, Net Banking, Mobile Banking etc)					
5	I am happy with the performance of the bank					
6.	I am satisfied with the extra facility provided by my bank.(Cashbacks Provided, discounts on online transactions ,reward points, locker facility, ticket booking facility, aadhar center, insurance-life/general etc.)					
8.	I am satisfied about the annual charges that my bank charges from me -(Atm charges , Sms Charges ,email charges, card issuance charges ,cheque charges etc)					
9.	I use the option of internet & mobile banking and I am satisfied with it					
10.	I get adequate training for investment and other financial needs from my bank.					

## Non Financial Parameters

**1: Agree 2: Somewhat Agree 3: Can't Say 4: Somewhat Disagree 5: Disagree**

1.	I am get adequate support when I visit my bank- <ul style="list-style-type: none"> <li>• Staff is helpful</li> <li>• All forms are available</li> <li>• Proper guidance is given</li> <li>• Resolution for my problem is given.</li> </ul>					
2.	I am satisfied with the service provided by the staff present in the bank					
3.	I am satisfied with the environment of the bank-it is clean and hygienic.					
4.	I am happy with the easy process that I have to follow when I visit my bank. <ul style="list-style-type: none"> <li>• I know where to deposit the case</li> <li>• I know where to get my passbook update</li> <li>• I know where to apply for debit/credit card</li> <li>• Others</li> </ul>					
5.	I know where to contact in case I have an issue with the services provided.					
6.	I am satisfied with the grievance redressal procedure of my bank					
7.	I am aware about the customer service points set up by my bank .					
8.	I am satisfied with the way my bank is contributing towards social cause.(Spreading awareness on polio, literacy of girl child, importance of aadhar, special schemes of the government for the underprivileged)					
9.	My bank is eco friendly(It uses less papers ,waste management is done, I find dustbins for dry and wet wastes)					
10.	I feel satisfied with the brand image my bank has in the society.					
11.	I am satisfied with the customer knowledge upgradation programme provided by my bank.					
12.	In comparison with other Public Sector Banks I am satisfied with the services provided by my bank.					

- How would you rate the performance of your bank out of 10



Priya Raman <priya.raman@arkajainuniversity.ac.in>

---

**Fwd: [Ouriginal] 7% similarity - priya.raman@arkajainuniversity.ac.in**

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**Priya Raman** <priya.raman@arkajainuniversity.ac.in>  
Draft

Wed, Apr 20, 2022 at 11:52 AM

From: **Dr. Angad Tiwary** <dr.angad@arkajainuniversity.ac.in>  
Date: Wed, Apr 20, 2022 at 11:41 AM  
Subject: Fwd: [Ouriginal] 7% similarity - priya.raman@arkajainuniversity.ac.in  
To: Priya Raman <priya.raman@arkajainuniversity.ac.in>, Sonia Riyat <dr.sonia@arkajainuniversity.ac.in>

----- Forwarded message -----

From: <noreply@urkund.com>  
Date: Wed, 20 Apr, 2022, 9:26 am  
Subject: [Ouriginal] 7% similarity - priya.raman@arkajainuniversity.ac.in  
To: <dr.angad@arkajainuniversity.ac.in>

Document sent by: priya.raman@arkajainuniversity.ac.in  
Document received: 4/20/2022 5:51:00 AM  
Report generated 4/20/2022 5:56:31 AM by Ouriginal's system for automatic control.

Student message:

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## INVIGORATING BANKING INDUSTRY THROUGH FINTECH.

**Ms. Priya Raman**

Research Scholar, Arka Jain University

**Dr Angad Tiwary**

Professor, ARKA JAIN University

### **Abstract**

Banks traditionally have enjoyed a monopoly in the financial sector. They are being licensed and regulated through RBI in India-the well regulated structure of these banks are the main reasons that they enjoy the support system in the country.

Banks have the option of raising huge public capital by the means of issuing shares. They have well developed infrastructure were they have connected with the customer and provided them with the services .

The study was conducted with the following objective:

- Understanding the meaning of Fintech
- Role of Fintech and its importance
- Impact of Fintech in the Banking Industry.

Descriptive Research Design using Qualitative data from various secondary sources are used to conduct this research. Predictive Analysis is used to find out the prominent factors impacting the role of Fintech in Banking Sector.

There is no better example of evolution than what we have seen in the financial world. From personal banking to online banking from your desktop to the comfort of your hands through mobile banking. The steps taken by technology have dramatically changed the way we bank today by introducing digital banking. Hardware improvements in terms of new gadgets, high data bandwidth in small amounts and software on e-commerce platforms have completely revolutionized the Payment Industry. In areas where banks were generally happy to rule alone, they came to realize the competition brought about by technically empowered processes.

Advanced technology supports excellent customer service and adds services ranging from job processing to making things better for customers. both sides of the spectrum.

Keyword: Fintech, Banking, Role of FinTech, Importance of Fintech.

### **I. Introduction**

Banks traditionally have enjoyed a monopoly in the financial sector. They are being licensed and regulated through RBI in India-the well regulated structure of these banks are the main reasons that they enjoy the support system in the country.

Banks have the option of raising huge public capital by the means of issuing shares. They have well developed infrastructure were they have connected with the customer and provided them with the services .

The impact of Globalization, Liberalization and Privatization(GLP) in the banking sector encouraged many banks to expand their horizons and provide the customers with upgraded technological and seamless services.GLP pushed the banking industry to upgrade itself technologically. Core Banking system,RTGS,NEFT were a result of GLP advancement. With time customers started looking for

various upgraded tools that helped them for a better solution. This upgradation pinched the banking companies and forced them to adopt technology in disseminating financial services.

Fintech was the go to solution of these banking companies to be sustained in the market. FinTech is the abridgement of Financial Technology. The companies offering Fintech services have gained momentum since the early 2008 there has been non banking technologically driven organizations that have promoted fintech.

Fintech firms basically, after taking due consideration of their market size, investment and the brand image work towards creating value for their partners. They focus on creating large market share for their customers. Fintechs achieve this by providing creative products and services in the field of finance.

## **II. Objective**

- Understanding the meaning of Fintech
- Role of Fintech and its importance
- Impact of Fintech in the Banking Industry.

## **III Literature Review**

Pierrakis & Collins (2013) stated that any modernization in the field of finance will hamper the existing structure of the banking industry and will reduce the 3rd party intervention, it will create new opportunities for the existing enterprises to create pathways for entrepreneurship, create accessibility of financial services and also increase privacy ,regulatory requirements.

Dorfleitner et al (2017) classified companies of Fintech into 4 more categories according to the available models. In comparison these organizations add value to the existing structure of banking system. It can also be identified on the basis of their envelopment of financing, management of assets and costings.

(Dorfleitner, Hornuf, Schmitt, & Weber, 2017)Attraction of consumers in context of innovative products and services that are more customer friendly and provide viable results all this possible only through fintech.

(Buchak, Matvos, Piskorski, & Seru, 2018) emphasized the role of fintech in making the assigned task easier,implementable,efficient and that benefits the consumer community at a large.Through Fintech it becomes possible for the consumers to achieve better products at a lesser cost. It also leads to cost reduction as technically there are no physical infrastructure cost attached to fintech.

## **IV Research Methodology**

Descriptive Research Design using Qualitative & Quantitative data from various secondary sources are used to conduct this research. Predictive Analysis is used to find out the prominent factors impacting the role of Fintech in Banking Sector.

## **V Meaning of Fintech**

The term Fintech is often used to explain the advantages induced in the field of finance due to technology. This tool is usually used by the organizations to implement IOT in the system. The term Fintech describes the involvement of IOT in the area of E Commerce ,payment modalities, crowd based funding. In other words Fintech is used to increase the accessibility of Financial Technology in the field of Finance.

## Types of Fintech Companies in India

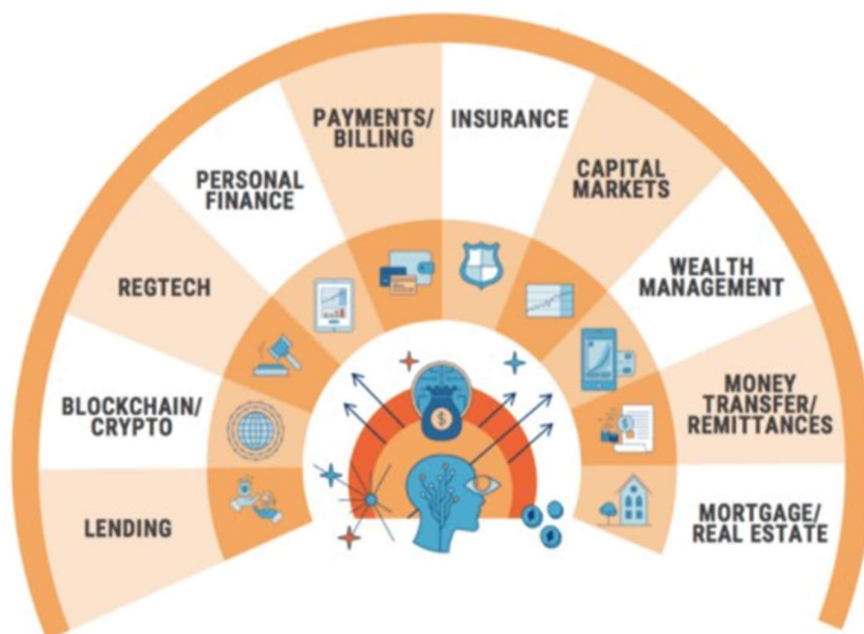


Fig:1: Source: <https://enterslice.com/learning/types-and-state-of-fintech-companies-in-india/>

### VI Role and Importance of Fintech in Indian Banking Sector.

Fintech has a major role to play in the advancement brought about in the field of Banking. The following points explain the same:

1. **Advanced Self Service Capabilities:** With Fintech absorbed in the banking system, this has facilitated the consumers to operate the banking facilities from remote locations and at any time of the day. Gone are the days where it was important for the consumers to visit the banks for the banking transactions.
2. **Advanced Programming Interfaces (API's):** Fintech has given the platforms to the banking industries to develop various platforms through which it can reach out to its customers with their innovative services without even asking the customer to come out of their households.
3. **Instant Payments:** Earlier making payments was a task for every customer. But now thanks to Fintech one can transfer any amount of money (depending on bank to bank limit approval) sitting anywhere without even having the requirement to visit a bank or an atm for that matter.
4. **Voicebots:** Instant Resolution is the new trend nobody wants to wait to resolve their grievances. Through these Voicebots applications of different banks, it becomes easier for the customers to get their queries and grievances resolved.
5. **Neo Banking:** A new concept of banking that has come alive only because of Fintech. Neo Banks are virtual banks without any physical branches but they aim to provide all the services that any

traditional banks provide.

## **VII Impact of Fintech in Indian Banking Sector.**

Digital transformation and automation make your mark in a few industries, at least in the financial services industry. Business Insider claims that "disruptive technologies such as artificial intelligence, blockchain, and other borrowings are transforming financial services." Many traditional banking organizations and branches continue to play an important role in a variety of

services, but most incorporate digital services, in order to compete fully with digital startups that have made a name for themselves. Technology has become a powerful tool for customers to use their financial services platforms. And in this way, banks and financial institutions can provide basic customer support and authorization processes in strategic operations.

There is a certain amount of confidence that comes from financial services clients from social engagement, too. In a recent survey of bank customers, 50% of respondents preferred to open a new investment account or apply for a new loan in person. In addition, 25% said they would not open an account at a financial institution that does not have local branches. The comfort of having a local face and personality at the bank is important to customers.

In addition to digital integration, virtual stations - branches and ATMs - continue to play a major role in banking, such as:

- Comparative operations have moved to digital channels, but the branches are always well suited for complex operations.
- Strict customer information (KYC) and anti-money laundering laws in various countries authorize personal contact with certain services, especially to first-time customers.
- Many customers choose personal advice on products even after doing digital research
- Similarly, many people of the millennium prefer to visit the branch to open a new account, learn about the budget, understand retirement options, understand and apply for a loan.
- In terms of security concerns, branches provide a permanent sense of security and security that are difficult for digital banks to achieve.

## **VIII .Conclusion**

There is no better example of evolution than what we have seen in the financial world. From personal banking to online banking from your desktop to the comfort of your hands through mobile banking. The steps taken by technology have dramatically changed the way we bank today today by introducing digital banking. Hardware improvements in terms of new gadgets, high data bandwidth in small amounts and software on e-commerce platforms have completely revolutionized the Payment Industry. In areas where banks were generally happy to rule alone, they came to realize the competition brought about by technically empowered processes.

Advanced technology supports excellent customer service and adds services ranging from job processing to making things better for customers. both sides of the spectrum.

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## NEO BANKS: FUTURE OF INDIAN BANKING SYSTEM

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### **Abstract**

The term Neo Bank has gained momentum recently considering its entry in the Financial Technology segment. If one wants to define Neo Banks they can be defined as Banks which do not have any corporeal presence and they interact with their customer base through online modality only. The term is a conglomeration of the two terms Information Technology and Artificial Intelligence. The ultimate aim of a Neo Bank is to provide for a seamless online banking experience to the customers. With time ,the Neo Banks have tried to distinguish themselves between the Grievance redressal services provided by the employees of the banks and being focused only on providing seamless banking experience to the customers

The current study is based on the secondary data available through different sources and a comparative study is done to analyze the role of neo banks in the country.

### **The study aims to fulfill the following objective:**

1. Understanding the structure of Neo Banks in India
2. Comparitive Study of Neo Banks with traditional Banks

Descriptive Research Design using Qualitative & Quantitative data from various secondary sources are used to conduct this research. A Comparative method is also used to compare the situation of Neo Banks and Traditional Banks.

Neo banks are becoming the new face of Indian banking system. They have rightly identified the gap between the need of the customers and the services offered by traditional banks. The services provided by them ensures seamless services provided to the customers. They also ensure that the customers have a hazel free transaction.

Key Words: Neo Banks, Traditional Banks Vs Neo Banks, Structure of Neo Banks

### **I. Introduction**

The term Neo Bank has gained momentum recently considering its entry in the Financial Technology segment. If one wants to define Neo Banks they can be defined as Banks which do not have any corporeal presence and they interact with their customer base through online modality only. The term is a conglomeration of the two terms Information Technology and Artificial Intelligence. The ultimate aim of a Neo Bank is to provide for a seamless online banking experience to the customers. With time ,the Neo Banks have tried to distinguish themselves between the Grievance redressal services provided by the employees of the banks and being focused only on providing seamless banking experience to the customers. The need to jump out of the traditional thought process is obvious because when technology is considered in the field of finance, they have been only restricted to two categories-Process Centric & Consumer Centric. But with the increase in demand for a bugless system Neo Banks have been forced to transform their focal areas and imbibe the current market requirement. The way the Fintech Segment has evolved, and the way banking system has digitalized itself ensuring maximum reachability and integrated financial system for its customers.

The concept of Neo Banks are specifically more solution oriented. Their feedback on customer handling, management, convenience and transparency is commendable. They are usually Non- Banking service providers of banking services as the Reserve Bank of India (RBI) has not approved for their 100% banking services, they can only function through their respective bank partners only.

These Banks provide speedy services to the customers in respect of account opening, initiating and receiving payments, allocation and settlement solutions, It helps the MSME's to improve their creditworthiness .

In this era of modernization in banking sector through digital means these Neo Banks serve as the most sought after alternative due to their Cost Effective Model.

Establishment of Neo Banks in India is a arduous process, due to strict RBI guidelines. It was only in 2019 that RBI allowed these Neo Banks to operate in the Indian Banking environment with a circumscribed ecology

## **II. Objective of the Study:**

The current study is based on the secondary data available through different sources and a comparative study is done to analyze the role of neo banks in the country.

The study aims to fulfill the following objective:

1.Understanding the structure of Neo Banks in India 2.Comparitive Study of Neo Banks with traditional Banks

## **III. Literature Review.**

1. Bhasin,2020-in his study stated the role of Neo Banks in India. The research emphasized the integration of technology and artificial intelligence to provide a seamless service for the customer. The study also focused on the enterprises which are looking forward to enter the Indian Market .
2. Palepu,Advait Rao,2019 -in his research aimed at establishing a relation with Capital Investment and the reachability of Neo Banks. The study also focused on the need for the limitations that were being imposed by RBI on these NEO Banks. The author also specifies that the prospect of Neo Banks in India shall flourish more and in a better manner in the Indian Market in comparison with any other market as the need and requirement of obtaining digital services is comparatively more in the country.
3. Agarwal and Nagar,2020-in their study has pointed about the constant changing environment in the banking industry. They have mentioned about the basic difference between Neo Banks and digital banks. They have also highlighted the essence of Neo Banks by brining out their benefits and shortcomings. The study has also brought to light the mechanism in which these Neo Banks function and operate.
4. Hopkinson,Turcam Klarova and et al,2019-The study highlighted the essence of the transformation bought about by the Neo Banks. It underlined the importance of the emergence of these Neo Banks and the reasons behind the same. The study suggested that it is only due to Neo Banks that the customers can invest in mutual funds. The flexibility of investing and using banking services as and when they want and also how customers can get an additional interest

via investing in these Neo Banks.

5. Kothari,2017-The study does not include anything on the lines of Fin Tech or Neo Banks,but the study explains the functioning of a commercial bank. The study helps to draw a comparison between the Neo Banks and Traditional Bank

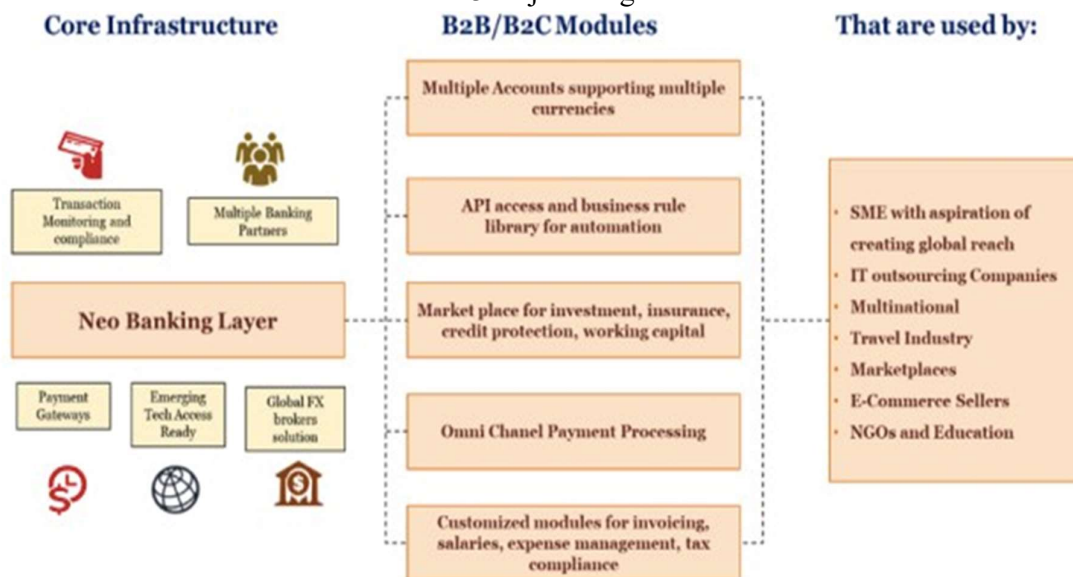
#### IV. Research Methodology:

Descriptive Research Design using Qualitative & Quantitative data from various secondary sources are used to conduct this research. A Comparative method is also used to compare the situation of Neo Banks and Traditional Banks.

#### V. Structure of NEO Banks:

Neo Banks are platform centric banks which rely on their partnering banks to function in a most efficient manner. They are virtually operated banks which work on the integration of Artificial Intelligence and Information Technology.

The structure of Neo Banks are classified into 3 major categories:



1. Core Infrastructure: The Neo Banks provide back end functioning to their partnering banks through this function. They provide solutions to the traditional banks with the grievances raised by the customers of Partnering bank.
2. B2B/B2C Model: Through this platform these neo banks provide end to end services to the partnering bank customers.
3. Users:Neo Banks have end number users for their services provided.IT companies, Financial Companies all opt for the services given by these Neo Banks.

#### VI. Comparative Study of Neo Banks & Traditional Banks.

While analyzing the GAP between the advantages and disadvantages of Neo Banks and traditional

Banks one can conclude the following points.

1. In comparison with the Traditional Banks Neo banks modality of operation are very cost effective. It does not have any operational and logistical cost attached to it.
2. Neo Banks are completely technology oriented, but this orientation also removes the essence of banking i.e. face to face interaction with the customers which facilitates many innovative product ideas as well.
3. Neo Banks provides 24\*7 access to its customers but it then stops the customers to visit their banks .
4. The biggest dependency of Neo Banks is on technology but its one of the biggest drawback as well. Every data is technology driven. Any deviation in the policy will not be entertained at all.
5. Getting the license for a Neo Bank is very difficult in comparison with starting a Traditional Bank.

## **VII Conclusion.**

Neo banks are becoming the new face of Indian banking system. They have rightly identified the gap between the need of the customers and the services offered by traditional banks. The services provided by them ensures seamless services provided to the customers. They also ensure that the customers have a hassle free transaction.

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## **CHAPTER V**

## **CONCLUSION**

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### **CONCLUSION**

The Indian banking sector has undergone major changes following the reform of the banking sector. Major changes have taken place in the structure of the bank, operations, part of the business, a workplace that includes the use of a banking system and Other deliveries channels. The advent of the new generation of banks created competition and efficiency for operation of banks in India. Banks are established nationally where ownership is held by The Indian government has lost part of the market share due to tense marketing pressure by new private banks. The recent economic downturn has affected the quality of goods and profits of Indian banks. Emergence of digital banking and other innovations bank channels are the latest trends in the banking sector.

Profitability is a major problem for Indian banks. Changes in the banking sector, competitiveness, prudent asset management, Basel systems, banking system and high level of concentrated assets has contributed to the profitability of banks. Despite the evil above conditions for private banks, especially new private banks, to operate rather good. Private sector banks have recorded high levels of business growth, profits service delivery channels and digital banking over the past 20 years and research focused are helping Indian banks to improve their profits. Private Banks have an important role in the Indian Banking Sector. Private corporate banks show structure efficiency for their private ownership benefit.

## **5.1 Evolution of Indian Banking Industry**

First Generation Banking:

During the pre-independence period (until 1947), the Swadeshi Movement saw the birth of many small and domestic banks. Many of them fail miserably because of internal fraud, money laundering, and bankruptcy.

Second Generation Banking (1947-1967): Indian banks have facilitated the collection of resources (collected by sales deposits) in small business families or groups, thus ignoring the flow of debt in agriculture.

Third Generation Banking (1967-1991): Government succeeded in breaking the industrial-banking relationship by nationalizing 20 major private banks in two phases (1969 and 1980) and introducing significant industrial loans (1972). These initiatives have led to the transition from 'class banking' to 'mass banking'. In addition, there has been a positive impact on the expansion of branch networks throughout (rural) India, the significant promotion of public deposit and the increase in debt flow in agriculture and related sectors.

Fourth Generation Banking (1991-2014): This period underwent significant changes such as the issuance of new licenses to private and international banks to incorporate competitiveness, improved productivity and efficiency. This is done using the technology used; the introduction of smart practices; to provide operational flexibility consistent with operational independence; focusing on the implementation of best corporate governance practices; and the consolidation of financial base in line with the Basel system.

Current Model: Since 2014, the banking industry has seen the acceptance of the JAM (Jan-Dhan, Aadhaar, and Mobile) trinity, as well as the issuance of licenses to Payments Banks and Small Finance Banks (SFBs) financial.

## The Way Forward: Fifth Generation Banking

**Central Banks:** A report by the Narasimham Committee (1991), emphasized that India should have three or four major banks, both internal and external, as well as foreign banks. The second category could include a few medium-sized lenders, including niche banks, with a global economy. In line with these recommendations, the government has consolidated a number of PSBs, initiated measures to establish DFI, Bad Bank, etc.

**The Need for Different Banks:** Although the global banking model has become very popular, there is a need for niche banking to meet the specific and diverse needs of different clients and borrowers. In fact, these specialized banks will make it easier to access finance in areas such as RAM (stores, agriculture, MSMEs). In addition, proposed DFI / niche banks may be established as specialized banks to access affordable public deposits and better manage asset liabilities.

**Blockchain Banking:** Risk management can be further clarified and neo banks can use technology to promote (digital) investment and support the high growth of aspirational / new India. In this context, technologies such as Blockchain can be applied to Indian Banking. Blockchain technology will allow smart monitoring and control of banks to be easier.

**Reducing Ethical Risk:** To date, bank failures of state-owned enterprises have been a rare occurrence and a hidden royal guarantee is the main reason for high public confidence in banks. However, with PSB's secret driving, this may not always be true. Therefore, the fifth generation banking reforms should focus on the need for individual high deposit insurance and effective restructuring rules to reduce ethical and systemic risks at minimal cost to the public treasury.

**ESG Framework:** Various banks may also be encouraged to be listed on the known stock exchange and adhere to the ESG framework (Environment, Social Responsibility, and Governance) in order to create a larger number of participants over time.

Empowering Banks: Government should intensify loose ends by allowing them to create diversified loans, establish industry-wise regulators, and provide additional capacity to deal effectively with defaulting defaulters. There is also a need to open the way for the business bond market (transformation in a bank-led economy) to create a banking system that responds to a real dynamic economy.

## **5.2 Findings**

The current study aims to define a balanced relationship between the Financial and Non Financial Parameters and their effect on the overall performance of the New Generation Bank. The following are the findings of the study:-

### **Effect of the Demographic Profile on the Banking Performance:-**

- The study has 68% male respondents and 32% female respondents which has a further bank wise classification as well. Enav Friedmann, Oded Lowengart in their study –“The Effect of Gender Differences on the Choice of Banking Services” stated that banks usually have preferential treatment with the kind of gender involved in their banks ,but through further investigation it was discovered that in the current study ,Gender does not have any pivotal role.
- The study records responses of respondents who have varied age frame.16% of the world’s population belongs to the youth and if the banks fails to cater them, they shall be failing miserably. But analysis of the current study prove that age does not have any effect on the overall performance of the New Generation Bank.
- The study has respondents who are Higher Secondary, Graduate ,Post Graduate & Professionally qualified.



It can be said that when the respondents were filling their responses they knew what they were filling in, hence their responses can be considered as valid. But the study does not provide for any significant relation between Education and the performance of New Generation Bank.

- The study has recorded responses of customers earning between Rs 2,50,000 to more than Rs 7,50,000 but does not significantly impacts the performance of the New Generation Banks.

Hence it can be concluded that none of the Demographic parameters effect the Performance of the New Generation Banks.

### **Effect of Financial Parameters on the Overall Performance :-**

To study the impact of Financial Parameters on the Overall Performance of New Generation Banks we conducted a study using 15 ratio's. Each Ratio impacting the organization in someway or the other. The 15 ratio's were further categorized further into 3 categories of Profitability, Liquidity & Capital Adequacy post which we categorize and rank them on the basis of overall performance.

- On the basis of profitability, we find that HDFC Bank is the best performer ,followed by Kotak Mahindra Bank, then by AXIS Bank & Yes Bank.
- On the basis of liquidity ,HDFC Bank still is the ruler, but there is a tie for the second place between Kotak Mahindra Bank & Yes Bank and the last place is taken by Axis Bank.
- On the basis of Capital Adequacy, there is a reverse ranking top rank is bagged by Kotak Mahindra Bank followed by Yes Bank & Axis Bank. Shockingly the last place is held by HDFC bank

- On the basis of overall performance HDFC Bank hold the first position followed by Axis Bank & Yes Bank who had tied in for the second place and the last place was held by Yes Bank.
- Post the analysis of the ranks ,all the scores were taken into the analysis under the Friedman Analysis where we arrived at a P Value of 0.022 which is less than 5% significance level, which helps us prove that Financial Parameter does have a significant impact on the Overall Performance of the New Generation Bank.

### **Effect of Non Financial Parameters on the Overall Performance :-**

To study the Non Financial Parameters impacting the Overall Performance ,Balance Score Card was implemented where 4 kinds of perspectives were examined:-Financial, Customer Satisfaction, Learning & Growth & Internal business Processes.

Based on the same following conclusions were drawn:-

- Financial Perspectives examines the performance measurement using the following factors -Credit Deposit Ratio, Net Interest Margin Ratio, Capital Adequacy Ratio & Net Non Performing Assets. It was found that out of the 4 factors that 3 of them significantly effected the overall performance.
- Customer Satisfaction Perspective examines the performance measurement using the following factors-Market Share in Deposits, Ratio of Marketing Expenses to Volume of business & Ratio of Priority sector Lending. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks.

- Internal Business Process Perspectives examines the performance measurement using the following factors-Cost to Income Ratio, Business per employee & Profit per Employee. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks.
- Learning & Growth Perspectives examines the performance measurement using the following factors- Number of Automated Teller Machines, Number of Skilled Employees, Ratio of Wage Bills to Total Income. It was found that out of 3 factors 2 of them significantly effects the overall performance of New Generation Banks

It can thus be concluded that Non Financial Parameter does effect the Performance of New Generation Banks.

### **Factors Prominently effecting the Performance of New Generation Banks:-**

The following factors were identified as the most prominent factors effecting the Performance if New Generation banks:-

• Credit Deposit Ratio
• Net Interest Margin
• Capital Adequacy Ratio
• Ratio of Marketing Expenses Volume of Business
• Ratio of Priority Sector Advances to Total Advances
• Cost to Income Ratio
• Business per Employee
• Number of Skilled Employees
• Ratio of Wage Bills to Total Income

The above mentioned factors were identified scientifically based on the p value these factors have generated .It was found that all these factors had a p value of less than 5% significance level and hence a valid factor impacting the overall performance of New Generation Banks.

### **Effect of Consumer Perception on the Overall Perception of New Generation Banks:-**

Perception is the most decisive factor on deciding in which bank will the consumer will open his account and what do they perceive about these banks.

Perception Analysis of these New Generation Banks are further categorized into the following points:-

- A. Perception on the Financial Services Provided by the bank
- B. Perception on the Staff Support provided by the bank
- C. Perception on the Environment of the Bank
- D. Perception on the Internal Process of the Bank
- E. Perception on the Overall Performance of the Bank

Through the analysis of these factors it was concluded that the customers were satisfied with the level of services ,support and the environment these sample New Generation Banks have. These can also be taken as one of the reasons because of which the consumers have maintained their Brand Loyalty with their New Generation Bank.

### **5.3 Limitations:**

In our study we have considered only 4 New Generation Banks for a period study from 2010-2021,where we could have considered other Banks as well. Also the study records the responses for its analysis Pan India and it does not restrict to any specific area.

## 5.4 Research Contribution:

We have applied a new model to study the integrated approach of Financial & Non Financial Parameters effecting the Overall Performance .Previously studies have been conducted to study either of the factors but none of them have used a cumulative approach to arrive at the factors that effect the Overall Performance of the Sample New Generation Bank.

## 5.5 Suggestions:

The findings of the research have **rejected** all the hypothesis :

**H<sub>01</sub>**- There is no Significant impact of Financial Parameters on the Performance of New Generation Banks

**H<sub>02</sub>**- There is no Significant impact of Non Financial Parameters on the Performance of New Generation Banks.

**H<sub>03</sub>**- There is no significant impact of Financial & Non Financial Parameter together on the Performance of New Generation Banks.

And it can be concluded that there is a significant impact of Financial & Non Financial Parameters on the Performance of the New Generation Bank.

Therefore the following suggestions, after a proper consultation with the stakeholders of the respected New Generation Banks can be recommended to the New Generation Banks:

- To keep the fundamentals intact
- To keep a check on the required BASEL Ratios to ensure the stability of the banks
- New Generation banks are gaining popularity majorly because of the customer service that they provide ,therefore to ensure the quality of the same is maintained.
- To take into consideration a holistic approach while framing the policy of the banks and not only the financial parameters to ensure maximum adaptability.

- To use the new edge technology to provide better services yet retain the banker customer relation to increase brand loyalty.

## **5.6 Way Forward:**

New Generation Banks have carved a pathway of customer friendly banking for its customers but by ensuring that their fundamentals are intact. Strict RBI compliance norms ensure that these New Generation Banks don't go haywire. Digitalization and Artificial Intelligence also play a main role in the development of these New Generation Banks. Although the banking sector has been around for a long time depending on technology and comprehensive data, The new data-enabled AI technology has four the ability to move forward with innovation as well faster than before. AI can help the better the efficiency, the more growth agenda, improve differentiation, manage risk and regulatory requirements, and of course influence customer feeling. Structure sophisticated AI programs once expensive, limiting key shipping use of conditions (e.g., high frequency trading).Deloitte's latest AI survey of IT and business executives of companies adopt AI technology and found that, from a technical point of view, cost and some adoption obstacles fall, too it becomes easier to do it again integrate AI technology. Organizations do what they set out to do investment in cloud-like, large areas data platforms, and data applications that use updated structures (e.g., microservices and event hubs), finishing key investment required especially development, supply, and rating AI solutions. However, many operational and organizational challenges stay, especially skills gaps as well AI integration is broad organization, to cite two examples

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