PERFORMANCE OF INITIAL PUBLIC OFFERING (IPO) INVESTING IN INDIAN CAPITAL MARKET: A STUDY OF BANKING AND NON-BANKING FINANCE COMPANIES (NBFCs) IPOs IN NEW MILLENNIUM

Doctoral Thesis Submitted in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy in Management

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THESIS COMPLETION CERTIFICATE

This is to certify that the Thesis titled **— Performance of Initial Public Offering (IPO) Investing in Indian Capital Market: A Study of Banking and Non-Banking Finance Companies (NBFCs) IPOs in New Millennium** submitted by AkinchanBuddhodevSinha in Partial fulfilment of the requirements for the award of the Degree of Doctor of Philosophy is an original work carried out by him under our joint guidance. It is certified that the work has not been submitted anywhere else for the award of any other Degree or Diploma of this or any other University. We also certify that he complied with the Plagiarism Guidelines of the University.

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DECLARATION OF AUTHORSHIP

I declare that this thesis entitled, **"Performance of Initial Public Offering (IPO) Investing in Indian Capital Market: A Study of Banking and Non-Banking Finance Companies (NBFCs) IPOs in New Millennium"** submitted by me in partialfulfilment of the requirements for the award of the degree of Doctor of Philosophy in Management of the ICFAI University Jharkhand, Ranchi is my own work. It contains no material previously published or written by another person, nor material which has been accepted for the award of any degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text.

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EXECUTIVE SUMMARY

For any economy, capital market acts as a fulcrum as they assist in transferring of funds from the savers to investors, thereby fostering economic growth. In this regard, capital market plays acts as a channel for providing long-term source of finance to corporate houses by bridging the gulf between savers and investors. Like the case of any other country in India too, corporate houses heavily bank upon capital markets for meeting their long-term financial requirements. Among two forms of long-term sources of finance, i.e. equity and debt, it is observed that majority of companies have proclivity towards equity share capital, i.e. both at the time of setting up of business entity as well as while going for either organic and inorganic growth. Equity share capital may be issued in the forms of Initial Public Offer (IPO) / Follow-on-Public Offer (FPO) / Offer for Sale (OFS).

With the passage of time and onset of LPG (Liberalization, Privatization and Globalization) era, Banking and Non-Banking Finance companies (NBFCs) have also followed the footsteps of other companies that are covered under various sectors of the Indian economy.

With reference to embracing of IPO (initial public offering) route by banking companies the recommendations of Narsimham Committee are noteworthy, as it ushered in a radical change in the capital raising avenues of public sector banks.Further, the New Economic Policy adopted in 1991 triggered drastic changes in the regulatory ecosystem governing Indian capital market.

The significant developments were annulment of the Capital Issues (Control) Act, 1947, annihilation of the Controller of Capital Issues and inception of capital market regulator, Securities and Exchange Board of India (SEBI). SEBI was created to meet the following objectives:

a) To uphold the interest of investors.

b) To accelerate the pace of capital market growth.

c) To regulate the securities market.

Along with the banks, another form of financial institutions that gained steam over a period of time was Non-Banking Finance Companies (NBFCs). NBFCs played a decisive role in providing finance to a large chunk of unbanked population of India.

As far as IPO (initial public offering) scenario of NBFCs is concerned, it is to be noted that since 2006, there has been an upsurge in IPO (initial public offering) issue by NBFCs in India. Renowned NBFCs operating under both public as well as private sector embraced the IPO (initial public offering) trajectory to raise equity share capital. Public sector Non-Banking Finance Companies (NBFCs) that opted for IPO (initial public offering) route are: Power Finance Corporation Ltd., Infrastructure Development Finance Company Ltd. and Rural Electrification Corporation Ltd.,

whereas the private sector Non-Banking Finance Companies(NBFCs) that preferred the initial public offering (IPO) route are: Muthoot Finance Ltd. and Edelweiss Capital.

Thus, in view of the significant role of banking and Non-Banking Finance Companies (NBFCs) in the financial system of Indian economy, this study made an endeavour to explore critical facets pertaining to Initial Public Offerings (IPOs) of the mentioned financial institutions, like, impact of Global Financial Meltdown or Global Economic Crisis on initial public offer (IPO) issue; impact of listing rules of stock exchanges on the initial public offer (IPO)listings of companies, especially, banking and Non-Banking Finance Companies; impact on key financial variables, like, Reported Net Profit after Tax (PAT), Return on Assets (ROA), Return on Equity (ROE), etc.

The objectives of the research study are as under:

a) To ascertain the trend of IPO investing / issue in India with special reference to Banking and Non-Banking Finance Companies.

b) To ascertain the impact of Global Economic Crisis on initial public offering (IPO) issue, with special reference to Indian banking sector.

c) To comprehend the initial public offering (IPO) performance of Banking and Non-Banking Finance Companies (NBFCs).

The research study consists of both qualitative as well as quantitative study. The research study has been conducted on the basis of both primary and secondary data. Primary data have been collated through an online questionnaire. Responses were received from 257 respondents. Data was collected from Academicians; Business / Financial Analysts; Entrepreneurs; Stock Brokers; Researchers and others that comprises of investors.

Various trustworthy sources have been referred for procuring secondary data. The data / information available in the websites of capital market regulator and stock exchanges, i.e. Securities and Exchange Board of India (SEBI), BSE Ltd. (Bombay Stock Exchange) and NSE Ltd. (National Stock Exchange) respectively have been accessed. In addition, research papers, business newspapers, articles, reports, journals etc. have been also referred from various sources.

The following statistical and financial tools have been used in the research study for conducting data analysis- Karl Pearson’s Co-efficient of Correlation; Parabolic trend equation; F-test (One Factor Model); Kruskal Wallis Test or H-Test; Mann Whitney U-Test; Initial or Raw Return and Market Adjusted Excess Return (MAER) on stock, Standard Deviation and Co-efficient of Variation.

The primary data have been analysed based on the responses collated from Academicians; Business / Financial Analysts; Stock Brokers; Entrepreneur, Researcher and others that comprises of investors on the following vital questions:

1) As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

2) Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit after Tax (PAT)?

3) According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges?

4) According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

5) In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

6) Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

7) Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

8) Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

9) Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

The secondary data have focused on the following financial variables for conducting analysis- Reported Net Profit after Tax (PAT); Return on Assets; Return on Equity, Non-Performing Assets; Initial Return or Raw Return and Market Adjusted Excess Return (MAER) on stock.

From the research study it can be inferred that banks and Non-Banking Finance Companies have scope for further initial public offer (IPO) issue, as current economic scenario provide favourable environment for issue of initial public offer (IPO). Further, in view of the increasing demand for credit by industrial, agricultural and other priority as well as non-priority sectors of Indian economy, initial public offerings (IPOs) may be of immense assistance in meeting the long-term financial requirements of both banking and Non-Banking Finance Companies (NBFCs).

Non-Performing Assets (NPAs) that have become a menace for Indian banking sector, in this regard, initial public offer (IPO) issue may provide financial succour to a great extent, as it will assist the banks in infusing additional capital. Similarly, Non-Banking Finance Companies (NBFCs)will also face requirements for additional capital to finance their ongoing business operations and expansion plans. In this regard, initial public offerings (IPOs) may prove to be a messiah for Non-Banking Finance Companies (NBFCs).

Moreover, with toxic loans and fiascos of banks on the rise, the banks have made a shift in their lending approach, i.e. instead of lending directly to customers they are lending to Non-Banking Finance Companies (NBFCs) who in turn are servicing corporate and retail customers. In light of the mentioned fact, there is high probability of Non-Banking Finance Companies (NBFCs) embracing the initial public offer (IPO) path in order to bolster their financial situation. The rise in the issue of initial public offer (IPO) by Non-Banking Finance Companies (NBFCs) is a metaphor of the mentioned facts.

To conclude, the recent significant developments like, soaring incomes resulting into stimulation of demand for financial products, financial inclusion drive of Reserve Bank of India (RBI), sanctioning of New Banking Licenses from Government of India, burgeoning business activities of Non-Banking Finance Companies (NBFCs), continuous amendments in the provisions of Issue of Capital and Disclosure Requirements (ICDR) Regulations, Listing Obligations and Disclosure Requirements (LODR) Regulations etc. are all set to stoke up initial public offer (IPO) issue by Banking and Non-Banking Finance Companies (NBFCs).

Keywords:**Scenario of Indian Capital Market; Identification of Research Gaps; Key Findings on the basis of Primary Data; Key Findings on the basis of Secondary Data; Scope of further Research Study.**

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CHAPTER- 1

INTRODUCTION

1.1 Overview

The capital markets are essential for the economic growth of a nation. In fact, it has been seen that a well-developed capital market is a precious national asset. Developed capital markets provide for some important macro economic benefits, including: a) faster economic growth, b) higher productivity and capital growth, c) higher employment, and d) a better developed financial market. Moreover, a developed capital market also offer some micro economic benefits, including: a) wealth formation for private investors, b) more flexible financing for companies, c) improvement of governance structures, since raising of long-term finance is carried out within the contours of laws governing capital issues, like, SEBI Act, 1992, Issue of Capital and Disclosure Requirements (ICDR) Regulations, Listing Obligations and Disclosure Requirements (LODR) Regulations etc. of d) higher cross border M&A power, and e) driving entrepreneurial behaviour.

The blessings of capital market are as under:

1) Bridge between Savers and Investors: The capital market works as a bridge between savers and investors. It plays a crucial role in mobilizing the savings and channelling them into productive investment. Therefore, capital market plays an important role in transferring the financial resources from surplus and uneconomical fields to deficit but productive areas, thereby, enhancing the productivity and prosperity of the nation.

2) Foster Savings: With the development of capital market, banking and non-banking companies provide facilities, encouraging people to save more. In developing countries, in the absence of capital market, there are very little savings and those who save often invest their savings in unproductive and wasteful assets, like, gold, jewellery etc. or in highly illiquid assets like land.

3) Promotes Investment: The capital market assists in lending to the corporate houses and the government, thereby, providing a fillip to the investment. It provides facilities through banks and non-banking financial companies. Various financial assets like, shares, securities, bonds, etc. motivate savers to lend to the government or invest in industry.

4) Encourages Economic Growth: The capital market not only reflects the general condition of the economy, but also smoothens and accelerates the process of economic growth. Various institutions of the capital market, like nonbank financial intermediaries, allocate the resources rationally in accordance with the development needs of the country. The proper allocation of resources results in the growth of trade

and industry in both public and private sectors, thus fostering a balanced economic growth in the country.

5) Bring about stability in prices of securities: The capital market tends to stabilise the values of stocks and securities and decrease the fluctuations in the prices to the minimum. The process of stabilisation is facilitated by providing capital to the borrowers at a lower interest rate and by reducing the speculative and unproductive activities.

However, the development of capital markets poses several challenges too. If not managed efficiently, rapid growth in capital markets can make the market susceptible to scams, volatility, excessive speculation and misuse by select parties. Capital markets ride on the savings of small and often uninformed retail investors, directly or indirectly. For policy makers, the challenge therefore is to attain a balance between the pace of growth and conservatism ensuring transparency and sound growth.

1.2 Scenario of Indian Capital Market

Over the years, the Indian capital market has witnessed a phenomenal structural metamorphosis in a way that it is now compared with the capital markets of developed economies. It happened since India embraced the path of liberalization, globalization and privatization and realizing the need for encouraging transparency in alternative sources of financing. In light of this, the regulatory and supervisory structure was revamped with most of the power for regulating the capital market being vested with Securities and Exchange Board of India (SEBI).

The capital market in India covers the following institutions- i) Commercial Banks; ii) Insurance Companies; iii) Specialized financial institutions like, IFCI, IDBI, ICICI, SIDCS, SFCS, UTI etc. iv) Provident Fund Societies; v) Merchant Banking Agencies; vi) Credit Guarantee Corporations. Further, the Indian capital market is divided into gilt-edged market and the industrial securities market. The gilt-edged market means market for government and semi-government securities, backed by Reserve Bank of India (RBI). The securities traded in this market are stable in value and are much sought after by banks and other institutions. On the contrary, industrial securities market refers to the market for shares and debentures of old and new companies. This market is further divided into the new issues market and old capital market meaning the stock exchange also known as Primary and Secondary markets.

However, in this research study only equity form of financing is focused upon. The research study makes an attempt to explore the equity financing scenario of public and private sector banks and Non-banking financial companies (NBFCs) in the form of Initial Public Offering (IPO) , Follow-on Public Offer (FPO) and Offer for Sale (OFS) in the new millennium that is from 2000 to 2015 onwards.

The enactment of three key legislations namely Capital Issues (control) Act 1947; Securities Contracts (Regulation) Act, 1956; and Companies Act, 1956 have been important steps to provide proper legal support for the development of capital market

in India. However, till mid of 1980s, India's Capital Market was dormant. Globalization and financial sector reforms have brought in drastic change in the financial framework of the economy. Since the onset of the financial sector reforms in the early 1990's, the implementation of various reform measures including a number including numerous structural and institutional changes in the different segments of the financial markets has ushered in a dramatic transformation in the working of the financial sector of the Indian economy. It is to be noted the Indian banking sector opened up to private bank formations in 1993 and consequently 10 new bank licenses were issued to them. The public sector banks were also permitted to raise capital from the market by issue of equity as long as they maintained 51 percent public ownership.

While referring the thesis of Rajeev G. "Capital market reforms and corporate investment behaviour in India", he has explicitly highlighted the reforms that resulted into a magnificent growth of Indian capital market. The significant reforms that were mentioned in his thesis are as under:

1) *Market Pricing of Issues*: Abolition of the office of Controller of Capital Issues (CCI), which assisted in removal of administrative controls over the pricing of new equity issues. Pricing was left to the market. This helped in better price discovery.

2) *Birth of Regulatory Bodies*: The Securities and Exchange Board of India (SEBI) were empowered in 1992. It was created to take care of investors interests and strengthen the development of the securities market. With SEBI coming into force it made mandatory for all market intermediaries to get registered with SEBI, which also provided the guidelines for Disclosure and Investor protection. This helped in building transparency and trust in the capital markets, thereby, providing a fillip to the capital raising process by corporate houses from the markets.

3) *Open Electronic Limit Order Book Market*: One of the major reforms of 1994 was starting of Electronic Limit Order Book (ELOB) and screen based trading by National Stock Exchange (NSE). It was followed by BSE Ltd. in 1995. This assisted in offering higher liquidity and transparent screen-based trading, as the open outcry approach was dominated by the traders at BSE. This also paved way for nationwide connectivity.

4) *Depository Services*: Due to absence of technology, share transfers till 1996 called for physical movement of share certificates. To sell the stock the shareholders had to remit certificates to the company through post offices. This resulted in a lot of back office work and enhanced transaction costs. Also to get shares transferred it consumed up to 45 days, adversely affecting the stock liquidity. But with Depository Act witnessing the light of the day in 1996, depositories were allowed to dematerialize securities and transform physical securities into electronic form. This directly resulted into slashing of transaction and handling costs, while also reducing the probability of forgery and counterfeiting. There was improvement in liquidity and enhancement in market efficiency.

5) *Derivatives Trading*: One of most significant reforms that took place in Indian capital market in June 2000 was the introduction of exchange-traded derivative

instruments. Financial instruments like, futures and options assisted investors to better hedge their positions and provided them with better risk management.

6) *Arrival of Foreign Capital*: The year 1994 marked the launching of Global Depository Receipts (GDRs) and American Depository Receipts (ADRs). Therefore, the corporate capital formation was available from domestic savings and from foreign savings.

7) *Foreign Portfolio Investment*: Another significant reform that happened in 1993 was the opening up of the Indian stock market for portfolio investment and for the first time Foreign Institutional Investors (FIIs) were permitted to invest in the Indian stock market. This was a big impetus to the secondary market. It also played a crucial role in strengthening India's foreign exchange reserves, particularly at a time when the country's reserves were unsteady after the 1991 crisis. Further, the rise in capital flows from outside brought down interest rates which exerted a positive impact on investment and growth.

*8)New Capital Issues- New Mechanism:*After discontinuation of CCI (Controller of Capital Issues), the mechanics of ascertaining offer price assumed tremendous significance. Initially, only fixed price mechanism was adhered to for floating new capital issues. This technique of floatation, however, suffered from a drawback, i.e., it was not easy to ascertain the price at which the market would clear the issue and, thus, resulted into either underpricing or overpricing of an issue. The empirical evidence in several countries suggests that new capital issues are generally underpriced. This resulted the transfer of wealth from the issuer to the investor, wherein the issuer has to bear a cost. As the method of offering shares at fixed price by the issuer has proved to be inefficient, an alternative method of book building gained steam in several countries. Book building mechanism is a method through which an offer price of an Initial Public Offering is based on investors demand. The book building phenomenon provided the issuer the choice to procure resources either through this or the fixed price mechanism. Although the book building guidelines were prescribed in 1995, no issue was floated on account of certain restrictive guidelines, which were amended in 1999. In terms of the extant guidelines issued by the SEBI, an issuer has been given the option to book build either 90 percent of the net offer to the public or 75 percent of net offer to the public. The balance issue is offered to the public at the fixed price determined through the book building exercise.

Need for Embracing 'The Public Route

Any theory of the decision to go public should provide a vivid description of costs and benefits of public versus private ownership that confront private companies. A simple observation that conducting an IPO involves important fixed costs, as documented in Ritter (1987), leads to the prediction that bigger firms or firms seeking larger capital infusions will go public. A recent and growing body of literature models a broad range costs and benefits that influence the IPO decisions. One of the earliest papers to examine this question is Zingales (1995). According to Zingales' model, an original owner sells shares in a competitive market to dispersed shareholders, thereby capturing the surplus associated with an increase in value of cash flow rights associated with a future change in control. The owner retains sufficient shares to

retain voting control which subsequently allows the owner to extract some of the eventual buyer's private benefits. Thus, the IPO serves as a forerunner to the firms being acquired.

Mello and Parsons (1998) have drawn a similar conclusion with a different set up. Their approach argues that a firm's owner receives important information from dispersed investors in the IPO, and that this information enhances the value that the owner can derive from the subsequent sale of a controlling block. Whereas in Zingales the optimality of an initial IPO is conditional on a subsequent buyer's ability to increase the firm's cash flows, the IPO is always best in Mello and Parsons because going public reveals information that decides whether a sale to a new owner increases firm value and that allows the original owner to extract a bigger faction of the surplus.

Banking gives a good opportunity to test theories that revolves around acquisition activity. In a research paper titled, "Why Do Firms Go Public? - Evidence from the Banking Industry" by Rosen J. Richard; Smart B. Scott and Zutter J. Clad, wherein the sample period of 1981-2002 of U.S.A was considered, which happened to be a period of rapid consolidation in banking, wherein they observed that over the period, numerous banks fell by nearly half, largely due to bank mergers. This implies that merger strategy is likely to be a significant factor when considering other strategic opportunities such as an IPO. It must be noted that there is an additional step in the merger approval process in banking relative to unregulated industries. Bank mergers calls for approval from bank regulators and the antitrust regulators at the US Justice Department.

Two papers that stressed upon other informational effects on IPO decisions are Chemmanur and Fulghiere (1999) and Subrahmanyam and Titman (1999) wherein, it was observed that a significant cost of public ownership in Chemmanur and Fulghiere's model emerges from small investors' (duplicative) costs of learning about a firm, which the firm bears in the shape of a lower offer price if it goes public. Their model forecasted that a firm goes public when information collection costs are low or when sufficient information about the firm has accumulated in the public domain. Subrahmanyam and Titnam also studied that how information gathering by dispersed investors influences the IPO decision. Their model permitted investors to procure information regarding the firm that insiders lack and this information improves the firm's investment decisions. When insiders can uncover this "serendipitous information" at low cost, firms go public otherwise they remain private.

Pastor and Veronesi (2005) in their model focused on the optimal IPO timing decisions of private firms. According to the model the firms decide when to exercise a real option to go public, invest proceeds, and begin production. The value of this option goes up when expected market returns takes a nose dive, when aggregate profitability is high, and when uncertainty about future aggregate profitability rises. Among the projections of their model are that IPOs waves caused by falling expected market returns are preceded by high market returns (which are not a function of mispricing, but rather depend on falling expected returns), and similarly, IPO waves driven by enhanced aggregate profitability follow periods of high market returns.

1.3 Need for Indian Banking Sector to Espouse IPO Trajectory

Commercial Banking has been one of the oldest financial systems in India and the earliest reference of commercial banking in India can be raced in the writings of Manu. Modern banking in India can be dated as far back as 1786 with the setting up of General Bank of India. At the onset of nineteenth century three Presidency Banks were established in Bengal, Bombay and Madras and in 1921 they were merged into newly formed Imperial Bank of India. The Imperial Bank of India was converted into State Bank of India under the State Bank of India Act, 1955. The swadeshi movement witnessed the birth of several indigenous banks such as Punjab National Bank, Bank of Baroda and Canara Bank.

In order to ensure efficient controlling of the banking system, the Government of India nationalized 14 major private sector banks with deposits surpassing INR 500 million in 1969. But the abysmal performance of the banks post nationalization triggered initiation of various reforms and in this regard one of the eye-catchy initiative as per the '*Recommendations of the Committee on Banking Sector Reforms, 1991'* was allowing public and private sector banks to access the capital market. The committee stated that with reference to those banks whose operations have been profitable and which enjoy a good reputation in the markets, they could straight away knock the doors of the capital market for increasing their capital. The committee therefore recommended that in respect of such banks, issue of fresh capital to the public through the capital market should be permitted. Subscribers to such issued capital could be mutual funds, profitable public sector undertakings and employees of the institutions besides the general public.

Within the broad range of financial sector, the banking sector constitutes a vital component of any economy. It acts as a catalyst in ensuring flow of funds from ultimate lenders to final borrowers. With the ushering of economic liberalization, the banking sector has witnessed drastic changes in line with Narasimham Committee recommendations. These reforms aimed at improving efficiency, bringing in transparency and ensuring a robust financial footing of the banking sector and one of the crucial initiatives in this direction as mentioned above was permitting the banks to embrace the IPO trajectory, thereby, diluting the government ownership and bringing these banks under market discipline.

Adherence to capital adequacy norms as per Basel III also played a pivotal role in espousing the IPO path by Indian banking sector. After the 2008 global financial meltdown, need emerged to strengthen the banking system further so that they can surmount further risks. To meet these risks, banks were advised to maintain a certain minimum level of capital and not lend all the money they receive from deposits. This acted as a cushion during hard times. The Basel III norms also take into account liquidity risks. As the global economic meltdown of 2008, triggered by the Lehman Brothers' collapse, set alarm bells ringing for banks / financial institutions. As mentioned the Basel III accord is designed to mitigate such risks by making the banking sector robust and more efficient.

The Basel III norms take into account higher risk in the system than before. Consequently, it has enhanced banks' minimum capital requirements. Accordingly, minimum tier 1 capital, i.e. the significant component of the banks' funds a substantial part of which should be in the form of shares is required to be 7% of the lender's risk weighted assets and the total capital at 9%. In addition, a 2.5% Capital Conservation buffer is to be maintained, taking the requirement to 11.5% of the risk weighted assets.

Another interesting point to study is that why banks prefer to chose the initial public offering (IPO) trajectory. There can be various reasons for espousing the initial public offering (IPO) path, like to finance organic and inorganic growth of the banks; to finance purchase of tangible fixed assets or to meet capital expenditures; to add new products in the product line etc.

However, one of the significant reasons for embracing initial public offer (IPO) trajectory by Indian banking sector have been to meet the recapitalisation requirements, as whether it is financing the growth of a bank; meeting of capital expenditures or any other important business activity, capital have been the epitome of the banking business. In this regard, it is quite interesting to comprehend the recapitalisation approach of banking sector.

Ailemen et al (2014) stated that the recapitalization should be one of most important aspect in the banking sector as it ensures development of the bank.

Juliet Ifechi&Akani (2015) mentioned that the banks require recapitalisation as it enhances the capital adequacy, liquidity, management quality, quality of assets and earnings quality.

Tomec&Jagric, (2017) analysed the effect of recapitalizations of banks on their profits during global economic crisis exerted a positive impact on their profits and the amount of profit enhanced proportionately with the increase in the amount of recapitalization amount.

Acharya (2017) mentioned that few banks are under the Reserve Bank of India to provide the banks a Prompt Corrective Action (PCA), as majority of them have not met the asset quality, recapitalisation or the profitability requirements given by the Reserve Bank.

ShraddhaKokane & Dr.ShriramNerlekar (2017) stated that infusion of new capital assist in reducing the levels of NPA as new capital in the balance sheet decreases the toxic assets.

Recapitalization implies a change in company's long-term financing mix. It is to be noted that post global economic crisis, almost majority of banks witnessed erosion of capital, i.e. their liabilities surpassed their assets. In such a scenario, recapitalization by Government of India was a big financial succour for majority of banks. It assisted banks to have a sound financial position and saved them from collapsing.

The drivers for recapitalisation of banks have been the regulatory requirements pertaining to capital adequacy and credit growth. The regulatory architecture at a global level is designed by the Basel Committee on Banking Supervision – a committee of bank supervisors comprising of members from representative countries. The impact of Basel III norms was observed in the form of recapitalization of public sector banks in India.

After a high credit growth rate regime during the expansionary stage of 2004-07, in tandem with India's high economic growth rate, the advances of public sector banks between 2008 and 2016 doubled, i.e. from INR 22.59 trillion to INR 55.94 trillion. The growth in advances, coupled with strict capital adequacy norms imposed by RBI in the wake of Basel III norms, high volume of NPAs and the abysmal performance of public sector banks (PSBs) resulted into significant capital erosion and need for further capital – both for replenishment of the capital base eroded by NPAs and fresh ones for providing loans.

It is interesting to note that in the last 31 years, i.e. between 1985-86 and 2016-17, the government had infused around INR 1.5 trillion in state-owned banks. In the period between 2008-09 and 2016-17 when the government injected cumulatively INR 1,18,724crore in public sector banks. The scenario of recapitalization of public sector banks during the period 2000-2015 is presented in the Table 1 below.

Table 1.1

Scenario of Recapitalization

Financial Year	**Recapitalization (INR in Crore)**
2000-01	No recapitalization by Government of India
2001-02	1,300
2002-03	770
2003-04	No recapitalization by Government of India
2004-05	No recapitalization by Government of India
2005-06	500
2006-07	No recapitalization by Government of India
2007-08	10,000
2008-09	1,900
2009-10	1,200
2010-11	20,117
2011-12	12,000
2012-13	12,517
2013-14	14,000
2014-15	6,990

Source: Union Budget Documents, Reserve Bank of India and Comptroller and Auditor General of India.

In this research study, sixteen public sector banks, four private sector banks, three public sector and two private sector non-banking finance companies (NBFCs) have been considered, and as business organisations raise long-term capital to meet their various business objectives, similarly it triggers academic and research interests to explore the reasons or objectives for embracing initial public offering (IPO) route by banks and non-banking finance companies (NBFCs) that have been taken into consideration for conducting the research study.

The reasons for the banks to embrace IPO / FPO / OFS route considered for the research study is provided below in Table 1.2.

Table 1.2

Reasons for banks to embrace IPO / FPO / OFS route

S.NO	Name of the Bank	Notation	IPO / FPO / OFS (INR Crore) and Year	Reasons or Objectives for IPO / FPO / OFS issue by banks
1	Allahabad Bank (Public Sector Bank)	A	1.INR 100 Cr. (2002)	The initial public offering (IPO) issue by the bank assisted the bank in increasing its Capital Adequacy Ratio
			2. INR 820 Cr. (2005)	The follow on public offer (FPO) issue resulted in reducing Government shareholding to 55.23%
2	Andhra Bank (Public Sector Bank)	B	3. INR 150 Cr. (2001)	The bank issued initial public offering (IPO) as a measure towards attaining sustainable growth by financing its future growth plans.
			4. INR 765 Cr. (2006)	The second public issue of equity share capital by the bank aimed at reducing government's holding from 62.5% to 51%
3	Bank of India (Public Sector Bank)	C	5. INR 211.17 Cr. (2007)	The bank issued equity share capital to meet its various business needs.
4	Bank of Maharashtra (Public Sector Bank)	D	6. INR 230 Cr. (2004)	The bank's initial public offering (IPO) was utilised towards opening of new

				branches and upgrading of extension counters into full fledged branches. During 2004, i.e. the year of initial public offering (IPO) issue the bank opened new 34 branches and upgraded 10 extension counters into full-fledged branches.
5	Canara Bank (Public Sector Bank)	E	7. INR 385 Cr. (2002)	The purpose of initial public offering (IPO) issue was primarily to augment long term resources and maintain a capital adequacy ratio of approximately 12 percent.
6	Indian Overseas Bank (Public Sector Bank)	F	8. INR 111.20 Cr. (2000)	The purpose of the initial public offering (IPO) issue was to reduce Government's stake in the bank and to enhance the CRAR (Capital to Risk Weighted Assets Ratio) from the then level of 9.15 to 9.50.
			9. INR 240 Cr. (2003)	The issue of further equity share capital by the bank was aimed to reduce Government of India's stake in the bank and it was expected that post this capital issue there will be an enhancement in the capital adequacy ratio from then 11.30 percent to 12 percent.
7	Punjab National Bank (Public Sector Bank)	G	10. INR 164.49 Cr. (2002)	The bank issued initial public offering (IPO) with the objectives of augmenting its long term resources and capital base to meet its future capital requirements.
8	UCO Bank (Public Sector Bank)	H	11. INR 240 Cr. (2003)	The bank came up with initial public offering (IPO) to meet capital adequacy ratio, as its

				capital adequacy ratio was slated to go up to 11 percent from then 10 percent. Further, the amount raised through initial public offering (IPO) was incurred on capital expenditure towards core banking and other information technology related activities.
9	Union Bank of India (Public Sector Bank)	I	12. INR 288 Cr. (2002)	The objective of the bank for initial public offering (IPO) issue was to enhance its long-term resources in order to meet its future capital adequacy requirements and to list the shares in stock exchanges.
			13. INR 495 Cr. (2006)	The bank issued additional equity share capital to increase its capital base in order to meet its future capital requirements arising out of the implementation of the Based II standards and growth in assets, i.e. its loan and investment portfolio due to the growth of the Indian economy, and for other general corporate purposes including meeting the expenses of the issue. General corporate purposes include development of infrastructure to support business growth and service the customers.
10	Vijaya Bank (Public Sector Bank)	G	14. INR 240 Cr. (2003)	The bank issued initial public offering (IPO) to augment the capital base in order to meet its future capital adequacy requirements. Further,

				to enhance the long-term resources of the bank and to meet the expenses of the issue.
11	ICICI Bank Limited (Private Sector Bank)	K	15. INR 3150 Cr. (2004) 16. INR 5750 Cr. (2005) 17. INR 8750 Cr. (2007)	The bank issued initial public offering (IPO) and further capital issue aimed to achieve the following: a) Executing the bank's business strategy, including growth in its retail portfolio. b) International expansion c) Investment in its insurance subsidies. d) Other general corporate purposes.
12	Syndicate Bank (Public Sector Bank)	L	18. INR 250 Cr. (2005)	The bank came up with equity share capital issue to reduce Government's stake and to enhance capital from then INR 472 crore to INR 522 crore.
13	Yes Bank Limited (Private Sector Bank)	M	19. INR 315 Cr. (2005)	The purposes of the initial public offering (IPO) issue of the bank were : a) To enhance long-term capital requirements in order to successfully implement the growth plans of the bank. b) To increase the paid-up equity capital in order to ensure compliance with the licensing directives of Reserve Bank of India. c) To diversify shareholding pattern.
14	Oriental Bank of Commerce	N	20. INR 1450 Cr. (2005)	The bank issued initial public offering (IPO)

	(Public Sector Bank)			with the objects of supplementing the capital base to meet the future capital requirements arising out of the implementation of Basel II standards and the growth in assets, i.e. loan and investment portfolio on account of the growth of Indian economy and for other general corporate purposes, including meeting expenses of the issue. Other general corporate purposes include development of infrastructure to support business growth and service the customers.
15	Development Credit Bank Limited (Private Sector Bank)	O	21. INR 185.90 Cr. (2006)	The purposes of initial public offering (IPO) issue of the bank were: a) Subject to compliance with applicable laws and regulations the net proceeds of the capital were to utilise towards increasing the capital to support growth and expansion and to enhance the capacity for lending and general corporate purposes.
16	The South Indian Bank (Private Sector Bank)	P	22. INR 165 Cr. (2006)	The net proceeds from the issue of initial public offering (IPO) intended to enhance the bank's Tier-1 capital base in order to meet expected increase of funds arising out of growth in assets, primarily loans / advances and investment portfolio as well as to ensure compliance with Basel

				III regulations and / or other Reserve Bank of India guidelines.
17	Bank of Baroda (Public Sector Bank)	Q	23. INR 1633 Cr. (2005)	The bank issued equity share capital to enhance Tier-II capital for strengthening the capital adequacy and increasing long term resources of the bank.
18	Central Bank of India (Public Sector Bank)	R	24. INR 816 Cr. (2007)	The objectives of the issue of initial public offering (IPO) were to increase the capital base and to meet the future capital needs out of implementation of Basel II norms and growth of assets, i.e. primarily loans and investment portfolio.
19	Indian Bank (Public Sector Bank)	S	25. INR 1000 Cr. (2005) 26. INR 782.15 Cr. (2007)	The bank issued equity share capital to meet future capital requirements arising out of implementation of the Basel II standards and the growth of assets, i.e. basically loans and investment portfolio. Further, the purpose of issue of equity share capital was to develop infrastructure to support business growth and service the customers.
20	Punjab & Sind Bank (Public Sector Bank)	T	27. INR 480 Cr. (2010)	The purpose of issuing initial public offering (IPO) was to augment the capital base to meet the future capital needs arising out of the growth of assets on account of the growth of Indian economy and for general corporate purposes including meeting the expenses of the issue.

The reasons for non-banking finance companies (NBFCs) to embrace initial public offer (IPO) trajectory is as under:

Table 1.3

Reasons for NBFCs to embrace IPO Trajectory

S.NO	Name of the Non-Banking Finance Companies (NBFCs)	IPO (INR Crore) and Year	Reasons or Objectives for IPO issue by Non-Banking Finance Companies (NBFCs)
1	Power Finance Corporation	997.19 (2007)	1) To achieve the benefits of listing on the stock exchanges and to raise capital 2) To meet the future capital requirements.
2	Infrastructure Development Finance Company	40.36 (2010)	1) To accomplish the benefits of listing in stock exchanges. 2) To support growth in the assets of the business.
3	Rural Electricity Corporation	1639.26 (2008)	1) The objects of the issue were to attain the benefits of listing on the stock exchanges and to raise capital to: a) To primarily meet loan and investment portfolio. b) To meet the future capital needs of the organisation. c) To meet various general corporate needs. d) To meet expenses of the

			issue of the issue of initial public offer (IPO) in order to accomplish the benefits of listing on the stock exchanges.
4	Muthoot Finance	901.25 (2011)	1) To augment capital base to meet future capital requirement to provide for funding of loans to customers. 2) To meet various general corporate needs.
5	Edelweiss Capital	691.86 (2007)	1) To increase margin maintenance with stock exchanges. 2) To set up additional offices and acquire office infrastructure. 3) To enhance existing technological capacity 4) To undertake prepayment of loans.

1.4 Notable Developments in Indian IPO Market

The launching of reform process in India might have remained in a shell if necessary changes were not brought about in the regulatory structure. The New Economic Policy (1991) resulted in a sea change in the regulatory framework of the capital market in India. The Capital Issues (Control) Act 1947 was rescinded and the Office of the Controller of Capital Issues (CCI) was abolished. The Securities and Exchange Board of India (SEBI), set up in 1988 was fortified with requisite powers in 1992, came to be known as the regulatory body with the requisite authority and powers to regulate and reform the capital market. The Controller of Capital Issues (CCI) has been the regulatory body for the Indian capital market for more than five decades. The CCI had a solid control over the Indian capital market as a regulatory authority.

Guidelines for issue of capital and pricing of securities have been unbending. SEBI came to be known as a regulatory body for the capital market after the abolition of the CCI. The control on pricing of capital issues has been annulled and easy access is provided to the capital market. The objectives of SEBI are:

a) To protect the interest of the investors.

b) To encourage and develop the capital market.

c) To regulate the securities market.

Apart from the aforesaid laws it is also pertinent to discuss the two important regulations governing initial public offer (IPO) issue and its listing in Indian capital market. The regulations are:

a) Issue of Capital and Disclosure Requirements Regulations .

b) Listing Obligations and Disclosure Requirements Regulations

a) Issue of Capital and Disclosure Requirements Regulations

In view of eliminating various drawbacks pertaining to issue of securities and investor protection laws, the capital market regulator of India, Securities and Exchange Board of India (SEBI) came up with a cogent regulation, i.e. Issue of Capital and Disclosure Requirements Regulations, 2009 (ICDR Regulations).

The genesis of ICDR Regulations may be traced back to the scenario when substantial number of promoters raised capital by divesting equities. In view of this, there was a need for a regulation that can take care of the anomalies in issue of securities. With the onset of ICDR Regulations, Securities and Exchange Board of India started keeping an eye on all the dealings of corporate houses that planned to procure capital through stock exchanges so that they do not indulge in generating artificial demands for forthcoming issues.

SEBI ICDR (Issue of Capital and Disclosure Requirement) Regulations, 2009 provided guidelines pertaining to conditions for different forms of issues including public and rights issue. It is to be noted that ICDR Regulations provided detailed provisions pertaining to public issue, i.e. Initial Public Offer (IPO); Follow-on Public Offer (FPO); Pricing of Public Issues; Governing Promoter's Contribution; Procedure regarding disclosures in Offer Documents etc. With reference to Offer Documents, the following are the important terms- Draft Offer Document; Red Herring Prospectus; Prospectus; Letter of Offer; Abridged Prospectus; Abridged Letter of Offer; Shelf Prospectus and Placement Document.

It is important to note that enactment of ICDR Regulations resulted in revocation of the then DIP (Disclosure and Investor Protection) Guidelines, 2009. The ICDR

Regulations mainly focuses on the requirements of a public offer, i.e. a) An unlisted issuer making an initial public offer (IPO) issue and b) A listed issuer making a Follow-on Public Offer (FPO) issue.

b) Listing Obligations Disclosure Requirements Regulations

Securities and Exchange Board of India (SEBI) has always strived to protect the rights of the investors and sacredness of the capital market by making listed companies more accountable through increased disclosures. Since the birth of Securities and Exchange Board of India (SEBI) it has been controlling companies with the help of listing agreement inked between companies going for listing and concerned stock exchanges.

In India, listing requirements have played a vital role in ensuring governance, disclosures and other conditions of continued listing. With the aim of maintaining a single document in sync with the Listing Agreement and to address the issues of excessive delegation in the garb of suppleness with reference to certain areas, like, disclosure requirements and corporate governance norms, SEBI converted the listing agreement into the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

The eye-catchy points of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 are as under:

i) Contains principles pertaining to disclosures and obligations of the listed entities and their Compliance Officers.

ii) Common obligations applicable to all listed companies.

iii) Chalking out obligations that are applicable to specific form of securities.

iv) Streamlining and separation of initial issuance / listing obligations.

v) Registration with SEBI SCORES (SEBI Complaints Redress System).

vi) Prior intimation of a company's capital raising event.

vii) Ensuring consistency in timelines for providing intimations to exchanges.

1.5 Non-Banking Finance Companies (NBFCs)

NBFCs play a crucial role in stimulating economic growth in the country, by meeting the diverse financial requirements of bank excluded customers. By financing real assets and advancing credit to infrastructure projects, NBFCs play a pro-active role in the development process of the country. The significance of NBFCs to the economy is important. There are 11,842 NBFCs registered with RBI as on date with the combined asset size of INR 16 lakh crore. There are 202 NBFCs, classified as Non-Deposit taking Systemically Important NBFCs (NBFC-NDSI), with a total asset size of INR 14 lakh crore. The share of NBFC assets as a percentage of scheduled

commercial banks assets has increased from 7 percent in 1998 to 14.8 percent in March 2015.

NBFCs have steadily mushroomed in number and market share, a metaphor of success of their business models and the potential of the target markets. Enhanced competencies in catering to market segments that are generally under-served by banks, like the non-salaried class, low-income households, small businesses and rural areas have assisted NBFCs to grow at an astounding pace than conventional banks.

NBFCs over the years have played a crucial role in the economy, be it in financial intermediation in rural and semi-urban areas or financing activities that are engines of growth, such as trucking, hotels and restaurants, wholesale and retails trade, leasing, hire purchase etc. Their ability to produce innovative products in consonance with the needs of their clients is well recognized. This in addition to the proximity to the clients in what makes the NBFCs distinct from its banking sector counterparts.

In fact, the NBFCs have all the key characteristics to enable the government and regulator to achieve the mission of financial inclusion in the given time. NBFCs in given restrictive environment over the years have played a tremendous role in financial Inclusion. If a conducive environment is created, NBFCs will be able to play excellent role in country's endeavour to achieve financial inclusion, one of the key tasks defined by the government for Indian financial system.

.The specific role and importance of NBFCs has been highlighted through broad points below:

a. Saving Utilization and Promotion: NBFCs help mobilizing savings by offering attractive schemes suitable to respective target segments. This is particularly important when it helps reach sections where commercial banks have limited reach.

b.Easy Credit Access: Given the universal target access, the formalities and processes at NBFCs are far simpler. It also offers financial access for unusual means like religious functions etc. which don't find mention in commercial banks product portfolio. The Banking sector has always been highly keeping pace, however easy approval procedures, flexibility in working style and timeliness in meeting the credit needs and low operation cost skew the balance in favor of NBFCs in providing funding.

c. Diversification: Most NBFCs work on the principle of providing a good return on savings while reducing the risk through diversification. They provide avenues for better returns to investors, have a greater reach and flexibility in tapping resources, provide retail services to small and middle level business and road transport operators and are an integral component of a diversified financial market.

d. Reduce Credit Funding Gap: There is a huge latent credit demand in the country that gets aggravated for specific segments like self-employed or small businesses with little or low income proof. The gap is further compounded with public sector banks already under severe bad-debts. This impacts the credit appetite for banks in medium to short run, which is serviced by NBFCs, thereby reducing the credit funding gap.

e. Product Innovation and Competitiveness: There are a range of financial products and services which were first provided by the NBFCs instead of banks, thereby pushing the envelope of financial portfolio and product development. For instance, the loans against gold were also introduced by the NBFCs much earlier than nationalized banks. In the same way, the commercial vehicle financing, in particular, were also first initiated by the NBFCs. NBFCs have also played an important role in the business ofsecurities- based lending such as Loan against Shares (LAS), Margin Funding, Initial Public Offering (IPO) Financing, Promoter Funding, etc.

f. Multi-layered Financial System: It is to be noted that Indian banking system alone is not capable of meeting the soaring credit needs. With the dawn of middle class and corresponding status progression, the responsibility of economic development strongly relies upon how well their financial needs are met. To this end, all major banks opened non-banking financial subsidiaries. These subsidiaries work as merchant banks, mutual funds, insurance companies, primary dealers and other NBFCs. Therefore, NBFCs play a basic role in expansion access to services, increasing competition and diversification of the sector.

g. Provide Investment Assistance: Mainly the investment companies provide investment advice and assistance- spread risk, diversification of securities, selection of investment vehicle etc. This is crucial for small investors.

h. Stimulate Economic Growth and Inclusion: The role of NBFCs as an engine of economic growth through creation of multi layered financial system that assist in universal access is duly acknowledged. They enable small scale businesses by offering them awareness, access and diversification of securities and investment. They also have an active role in the capital market and its stability.

1.6 IPOs by NBFCs

As discussed, NBFCs which made a modest beginning way back in the 1960s to address the financial requirements of the savers and investors whose financial needs were not adequately met by the existing banking system in India gained substantial ground and began to cajole a mammoth number of investors owing to their customer friendly reputation. Since the days of Liberalization, Privatization and Globalization (LPG, commenced in 1991), there has been a burgeoning growth of NBFCs.

In the last twenty years, the NBFCs have attained great significance by adding depth to the overall financial sector. Since NBFCs have been performing a crucial role in the process of intermediation, particularly in areas where established financial institutions are not easily accessible to borrowers, it creates paramount academic and research interests to comprehend embracing of IPO route by NBFCs.

During the period 2007 to 2015 a huge number of IPOs were issued by NBFCs, i.e. almost 19 IPOs struck the capital market. It was during this period when renowned NBFCs like, Power Finance Corporation Ltd., BCB Finance Ltd., Muthood Finance Ltd. etc. came up with issue of IPO.

1.7 Role and Performance in IPO by NBFCs

Investment activity of NBFCs consists of approximately 16% of their total assets. These constitute mainly investments in capital market. It is to be noted that there are specialised NBFCs that are fully involved in capital market investments, i.e. trading in securities. These NBFCs therefore assist in providing liquidity to the capital market. Further, NBFCs also lend to investors for investing in capital market.

NBFCs are actively engaged in the business of IPO financing or funding. IPO funding or financing is a loan offered for applying in primary stock market by NBFCs to high net worth individuals (HNIs). Several Non-Banking Finance Companies in India are involved in security based lending business. In majority of the cases these NBFCs are part of a large stock brokerage firm. Most of these companies are rated A1+ (highest short-term credit rating) from CRISIL.

It is to be noted that NBFCs has a lien on the shares allotted in case of the IPO issue. So in case,default by the borrower, the lender has the capacity to liquidate the held shares to recover the loan amount together with the interest. Also the account in this case is operated by the company extending the loan facility instead of the investor himself.

Some of these NBFC companies who are involve heavily in IPO funding includes: Edelweiss through ECL Finance Limited, Sharekhan through Sharekhan Financial Services Private Limited, JM Financial through JM Financial Products Limited, Aditya Birla Money through Aditya Birla Finance Ltd, SMC Finance through Moneywise Financial Services Pvt Ltd., Axis Bank through Axis Finance Limited etc.

NBFCs have been actively engaged in financing of IPOs of companies representing varied sectors, i.e. pharmaceutical, microfinance, e-commerce etc.

1.8 Trigger for Research Study

The post liberalization era has witnessed a large number of corporate houses embracing the IPO route. The corporate world considered it as one of the vital sources of funds with long or indefinite maturity. Going by the trends of IPO issues, it may be opined that IPO has a special place in the Indian capital market. However, if one observes the scenario prior to liberalization era, it can be observed that predilection towards IPO was not to a high extent (please refer exhibit 1.1).

Exhibit 1.1

New Issue Capital in India during the Pre-reform Era

Period	Equity shares	Debentures	Preference Shares	Total (Rs. in Crore)
1951-60	202	44	39	285
1961-70	462	188	77	728
1971-80	746	190	56	992
1981-91	7857	15,459	40	23,357

Note: The figures mentioned in the exhibit denote number of IPO issued under the categories of Equity, Debentures and Preference Shares

Source: Reserve Bank of India

Thus, from the above exhibit it can be clearly observed that during the period 1951 to 1991, the IPO market did not thrive so much. For accentuating the activities in Indian capital market, the credit goes to various reforms that were initiated with the implementation of new economic policy. With the repudiation of Capital Issues (Control) Act, 1947 and subsequent annulment of the Officer of the Controller of Capital Issues (CCI), a new regulatory body, named Securities and Exchange Board of India (SEBI), entered the arena of capital market with statutory powers conferred in the year 1992 to regulate and reform the capital market in India. The onset of SEBI played a pivotal role in changing the IPO scenario of Indian capital market. The higher magnitude of confidence among the issuers of capital got reflected in the ensuing data (please refer exhibit 1.2).

Exhibit 1.2

Upsurge in IPO Activity

Year	No. of IPO (Initial Public Offering) issued	Amount (in INR Crore)
2000-01	128	2608
2001-02	6	860
2002-03	5	460
2003-04	24	1959
2004-05	23	13,749
2005-06	79	10,936
2006-07	77	28,504
2007-08	85	42,595
2008-09	21	2,082
2009-10	39	24,696
2010-11	53	35,559
2011-12	54	41,515
2012-13	33	6,528
2013-14	38	1,236
2014-15	46	3,311
2015-16	74	14,815

Source: SEBI (http://www.sebi.gov.in/sebiweb/home/list/4/32/0/0/Handbook-of-Statistics)

From the above exhibit it is clear that IPO activity have gained steam as the time passed by. In 1998-99 there were merely 18 IPOs amounting to INR 404 crore. However, a surge in IPO activity can be observed during 2000-01 with the rise in both the number of IPO and total amount raised.

Looking into the dynamics in IPO market, it created a paramount academic and research interests to delve deep into the IPO scenario of Indian financial services sector, i.e. banks and NBFCs. The rationale for considering the aforesaid financial institutions for the research study arises from the fact that within the broad range of financial sector, the banking sector constitutes an important component of any economy. It acts as a pivot in channelizing resources from ultimate lenders to final borrowers. The banking sector has different features from other sectors. Considering its significance in resource allocation and economic development in majority of economies the banking sector has been more regulated other than industries and such regulations have been all the more strict in developing economies (Kumbhakar& Sarkar, 2002).

The banking sector in India, like in most other developing countries, is characterized by the preponderance of government ownership in the presence of various other ownership groups (private domestic and private foreign). In India, in an effort to the

address the social and economic objectives, the largest private sector banks were nationalized in 1969. The smallest private and public sector banks and foreign banks were permitted to coexist with the public sector banks.

With the ushering of LPG (Liberalization, Privatization and Globalization) policy, the banking sector has witnessed radical changes in line with Narasimham Committee recommendations. These reforms aimed at improving efficacy, ensuring transparency and insuring a robust financial footing of the banking sector. One of the important steps in this direction was permitting the public sector banks to embrace IPO route, thereby, diluting the government ownership and brining these banks under market discipline. Consequently, majority of public and private sector banks opted for IPO route to procure funds.

One of the crucial reasons for allowing public sector banks to access the capital market was to support the re-capitalization requirements of these banks. In one of the estimates provided by Reserve Bank of India in the year 2000 the Governor, Dr.BimalJalan, stated that the public sector banks would require INR 100 billion of additional capital in the years to come. The two possible sources of capital infusion are by governmental infusion of funds and/or allowing the banks to access the capital market. With numerous demands on government budget and the continuing need for fiscal consolidation, subscription to banks' capital cannot be considered as a priority claim on the budgetary resources. Thus, the Narasimham Committee Report encouraged Public Sector Banks to access both domestic and foreign capital markets to address the issue of recapitalization.

The initiative to allow public sector banks to foray into capital market proved to be fruitful. Indian Bank which almost two decades ago where people of Tamil Nadu were sceptical of parking their money with Indian Bank due to incurrence of huge net loss to the tune of INR 1600 crore which resulted into erosion of its networth almost witnessed a drastic change in its destiny with its IPO getting oversubscribed by 32 times in 2007.

Quite recently, the follow-on equity offers of Union Bank of India and Syndicate bank were subscribed 29 times. Also it was observed that among 19 nationalized banks, Indian Bank's initial offer carried the highest price tag, i.e. a band of Rs77 to Rs91. If investment banking sources are to be believed, 99% of the subscriptions were at the upper end of the price band.

In the last some years the rise in IPO issues by both public and private sector banks in India is a metaphor of India's journey towards a robust economy of the globe as a banking system with adequate funds at its disposal can only finance various infrastructural projects and other significant business activities, the most notable being financing of Micro, Small and Medium Enterprises (MSMEs). Moving ahead, a private sector bank, RBL (Ratnakar Bank Limited) Bank has come out with a maiden IPO of a fresh equity issue worth INR 1212.97 crores thereby taking the torch of IPO ahead.

As mentioned in a research paper titled, "Initial Public Offers in India: Trend and Market Developments" *(International Journal of Business and Management*

Invention, Volume 3, Issue 9, September 2014), it is interesting to note that among the new issues of financial instruments between March 2001 to March 2013 maximum number of financial instruments in primary market came from banking sector (115), construction (74), IT(69), Textile sector (56), comprising of equity shares, preference shares, debentures, right issues, and follow on issues etc. The total INR 433,368.4 crore mobilized from new issue market during the aforesaid period by corporate houses with the help of various instruments, 26.36 percent of this total amount went to banking sector, 13.26 percent to power sector, and 9.5 percent to finance sector whereas construction sector received 6.6 percent of this total amount. Construction sector floated 74 new issue in the market which was 8 percent of the total number of the new issues came in the market from March 2001 to March 2014 whereas the amount raised by the sector is merely 6.6 percent of the total amount mobilized to corporate sector. In the period power sector received 13.2 percent of the total amount with merely 2.7 percent number of new issues. Power sector float issues of gigantic size as the sector needed a huge amount of funds to invest in the projects. In terms of amount mobilization banking (26 percent), power (13 percent), finance (9.5 percent), construction (6.6 percent), telecom sector (2.1 percent) were issuer of big lots.

Another form of financial institution that has gained prominence in meeting the financial needs of the borrowers and providing a fillip to the economic growth of India is Non-banking Financial Companies (NBFCs). NBFCs are playing a pro-active role in the development process of the country. There are 11,842 NBFCs registered with RBI with the combined asset size of INR 16 lakh crore. There are 202 NBFCs, classified as Non-Deposit taking Systemically Important NBFCs (NBFC-NDSI), with a total asset size of INR 14 lakh crore. The share of NBFC assets as a percentage of scheduled commercial banks assets has increased from 7 per cent in 1998 to 14.8 per cent in March 2015.

NBFCs have steadily mushroomed in number and market share, a metaphor of success of their business models and the potential of the target markets. Enhanced competencies in catering to market segments that are generally under-served by banks, like the non-salaried class, low-income households, small businesses and rural areas have assisted NBFCs to grow at an astounding pace than conventional banks.

NBFCs over the years have played a crucial role in the economy, be it in financial intermediation in rural and semi urban areas or financing activities that are engines of growth, such as trucking, hotels and restaurants, wholesale and retail trade, leasing, hire purchase etc. Their ability to produce innovative products in consonance with needs of their clients is well recognized. This in addition to the proximity to the clients in what makes the NBFCs distinct from its banking sector counterparts.

Thus, looking into the significance and indispensability of the two forms financial institutions, i.e. banks and NBFCs , triggered a research interest to ascertain about their IPO / FPO / OFS issue scenario, impact of issue of IPO / FPO / OFS on key financials such as, Reported Net Profit After Tax, Return on Assets, Return on Equity and post listing return on IPO. Further, there was also an inquisitiveness to observe the impact on the IPO / FPO / OFS issue of both public and private sector banks during pre and post global economic crisis.

1.9 Research Motivations

1) Growth of Indian capital market especially post 1991, i.e. the onset of liberalization, privatization and globalization era.

2) Initial Public Offers / Follow-on Public Offers / Offer for Sale as a crucial source of raising long term finance by banks and Non-banking Financial Companies.

3) Impact of global economic crisis on the issue of Initial Public Offers / Follow-on Public Offers / Offer for Sale of banks and Non-banking Financial Companies.

4) Impact of issuance of Initial Public Offers / Follow-on Public Offers / Offer for Sale on the key financial parameters, i.e. Reported Net Profit After Tax of both banks; Return on Equity and Return on Assets of banks and Non-banking Financial Companies considered for the study.

1.9A Research Methodology

Research methodology embraced for this research study is described in the following sub sections: Research Design; Sources of Data and Data Analysis techniques, i.e. various statistical and financial tools. Also the rationale for using various statistical and financial tools has been also provided.

Research Design

The purpose of this study is to look into the IPO issue scenario of Banking and Non-Banking Finance Companies of India in the new millennium, i.e. from 2000 onwards. This study also aims to ascertain the likely IPO issue trend of Indian Banking sector till 2030 and post IPO performance of selected banks and NBFCs, in terms of IPO Offer Price; Return on Assets; Return on Equity; Reported Net Profit after Tax and Non-Performing Assets. Moreover, this study makes an endeavour to comprehend the impact of various laws / regulations on IPO issues in Indian capital market, particularly on Indian Banking and Financial Services sector.

Sources of Data

Population refers to the complete group of people, events or things of interest that the researcher wishes to explore and wants to make inferences based on sample statistics (Sekeran&Bougie, 2010).

The target population for the study are-

i) Selected listed public and private sector banks of India.

ii) Selected listed Non-Banking Financial Companies of India.

It is to be noted that for the purpose of study on IPO, the following forms of equity issue have been covered-Initial Public Offerings / Offer for Sale / Follow-on Public Offer (FPO).

Statistical and Financial Tools

a) *Karl Pearson's Co-efficient of Correlation*- Correlation refers to sympathetic movement of variables either in the same or in the opposite directions. Simple correlation deals with co-variation of two variables while multiple and partial correlations involve a study of co-variation between more than two variables. The relationship between variable is established and measured quantitatively with a view to making estimates based on them.

The usage of this statistical tool will assist us to ascertain the correlation between the quantum of IPOs issued in the Banking and Financial Services industry and the resultant growth in the Banking and Financial Services industry.

b) *Parabolic trend equation*- A quadratic trend equation has the form $Yt = a + bX + cX^2$ and its graph is called a second degree parabola and hence the name second-degree parabolic trend. A quadratic trend equation involves three parameters a, b and c. Unlike straight line where the slope is constant at all points and the slope co-efficient is given by b, in a second degree parabola, the slope is different at different points, but changes at a constant rate of 2c.

c) F-test (One Factor Model)- F-tests are named after its test statistic, F which was named in honour of Sir Ronald Fisher. The F-statistic is simply a ratio of two variances. Variances are a measure of dispersion, or how far the data are scattered from the mean. Larger values represent greater dispersion. Variance is the square of the standard deviation. For us humans, standard deviations are easier to understand than variances because they're in the same units as the data rather than squared units. However, many analyses actually use variances in the calculations.

F-statistics are based on the ratio of mean squares. The term "mean squares" may sound confusing but it is simply an estimate of population variance that accounts for the degrees of freedom (DF) used to calculate that estimate.

Despite being a ratio of variances, one can use F-tests in a wide variety of situations. Unsurprisingly, the F-test can assess the equality of variances. However, by changing the variances that are included in the ratio, the F-test becomes a very flexible test. For example, you can use F-statistics and F-tests to test the overall significance for a regression model, to compare the fits of different models, to test specific regression terms, and to test the equality of means.

This test will help us to know the IPO performance of Banking and Financial Services sector in terms of Offer Price; Return on Assets; Return on Equity; Reported Net Profit After Tax and Non-Performing Assets.

d) Kruskal Wallis Test or H-Test- The Kruskal-Wallis test is a nonparametric (distribution free) test, and is used when the assumptions of one-way

e) MANN WHITNEY U-TEST: It is a non-parametric alternative test to the independent sample t-test. It is a non-parametric test that is used to compare two sample means that come from the same population, and used to test whether two sample means are equal or not. . This non-parametric test will help to comprehend that whether there is a significant difference or not in quantum of IPO issue of Banking sector pre and post Global Economic Crisis.

Details about data collection

Data is collated both from primary and secondary sources. Secondary sources consist of books, online journals, websites of Securities and Exchange Board of India, BSE Ltd., NSE Ltd. Social Science Research Network and other authentic sources. As far as primary data is concerned, responses have been collated from Academicians; Business / Financial Analysts; Entrepreneurs; Stock Brokers; Researchers and others that comprises of investors.

While drafting the questionnaire for collection of primary data the key facets pertaining to IPO issue of Banking and Non-Banking Finance Companies (NBFCs) have been taken care of. The questionnaire encompasses questions pertaining to quantum of IPO issue by banks and NBFCs, impact of IPO issue by banks and NBFCs on key financials, i.e. Reported Net Profit After Tax (PAT), Return on Assets and Equity, etc. have been incorporated in the questionnaire. Further, a very pertinent question that figured in the questionnaire is the impact of global economic crisis on the listing of IPO in stock exchanges issued by banks and NBFCs. The questionnaire was given to 64 respondents comprising of academicians, business / financial analyst, entrepreneur, stock broker, research and others.

The population from where sample have been collected consist of academicians, business/ financial analysts, entrepreneurs, stock brokers, researchers and others that comprises of investors.

In order to standardize the questionnaire, a pilot study was duly conducted and based upon the valuable research inputs, the questionnaire was suitably revised in order to meet the requirements of the research study.

Data Analysis

For data analysis, the following statistical and financial tools have been used- Karl Pearson's Co-efficient of Correlation; Parabolic Trend Equation; F-test (One Factor Model); Kruskal Wallis Test or H-Test; Mann Whitney U-Test; Initial or Raw Return on Stock; Market Adjusted Excess Return (MAER) on stock; Standard Deviation and Co-efficient of Variation.

The aforesaid statistical and financial tools have been applied on different financials, like, Reported Net Profit After Tax (PAT); Return on Assets; Return on Equity; Forecasting of IPO issue till 2030 etc. in order to obtain a clear picture of the impact of IPO issue by banks and NBFCs.

The rationale behind using the aforesaid statistical and financial tools for data analysis is as follows-

a) Karl Pearson's Co-efficient of Correlation- The usage of this statistical tool will assist us to ascertain the co-efficient of correlation between the two variables, i.e. the value of IPO issued by both public and private sector banks of India selected for the research study and its impact on their Reported Net Profit After Tax (PAT).

Moreover, this statistical tool will also assist in determining whether there have been a debilitating impact on the IPO issue (value-wise) of both public and private sector banks of India selected for the research study or not due to their Non-Performing Assets (NPAs).

b) Parabolic trend equation- This statistical tool will help in computing the forecasted values of IPO issue of Indian capital market at a macro level and Banking and Non-Banking Financial Companies at a micro level.

c) F-test (One Factor Model)-This will help in assist us to know the IPO performance of Banking and Non-Financial Banking Companies in terms of ; Return on Assets and Return on Equity

d) Kruskal Wallis Test or H-Test- This tool will help in gauging the effects of Global Economic Crisis on IPO issues, with special reference to Banking and Non- Finance Banking Companies.

e) Mann Whitney U-Test: This non-parametric test will help to comprehend that whether there is a significant difference or not in quantum of IPO issue of Indian Banking sector pre and post Global Economic Crisis.

f) Initial or Raw Return and Market Adjusted Excess Return (MAER) on stock: These two financial tools will assist in comprehending the post IPO listing performance of selected public and private sector banks and Non-Banking Financial Companies (NBFCs) of India.

g) Standard Deviation and Co-efficient of Variation: This statistical tool will assist in ascertaining as to which year / (s) have been opportune for the IPO issue for both public and private sector banks and NBFCs considered for the research study.

Findings

The findings of the research study may be broadly classified into two categories- a) Findings provided by various organizations / firms engaged in research pertaining to Indian capital market and b) Findings on the basis of self-study. It is to be noted that Findings on the basis of self-study have been covered expansively in Chapter 5- Data Analysis and Interpretation. In this chapter only the findings provided by various organisations / firms engaged in research pertaining to Indian capital market have been provided.

Capital Market Research Firms study on Initial Public Offers (IPOs)

On referring the research studies of organizations involved in capital markets research it can be observed that 'Book building issues' continued to dominate the scene. Of the 38 issues, 33 issues (87 percent) were made through this trajectory, collectively mobilizing over than 99 percent of the year's amount. On another front, according to PRIME DATABSE (Information Management Specialist), there was a continued dominance of fresh capital, which typically goes into productive assets as against offers for sale where the proceeds goes to the seller- promoters, funds and other investors- and not to the company. Fresh capital took a 94 percent share at INR 15,941 crore, though down by 63 percent from INR 43,065 crore in 2007. Offers for sale raised a meagre INR 968 crore in 2008, in comparison to INR 2077 crore in 2007.

According to PRIME DATABASE, the mobilization in 2008 could have been assisted by PSU divestments. In 2004, an impressive INR 16,819 crore was accounted by PSU disinvestments, which dropped to nil both in 2005 and 2006 and was INR 995 crore in 2007. In 2008, Rural Electrification Corporation (REC) witnessed an insignificant divestment of INR 820 crore.

Exploring equity issues in 2009, mobilization of resources through rights issue registered a substantial decline in fiscal 2008-2009. According to Mr.PrithiviHaldea of PRIME, the country's renowned database on the primary capital market, by amount, the year witnessed merely INR 12,622 crore being raised, which was lower by 61 percent than INR 32,518 crore was raised in 2007-08. However, it is to be noted that more than half of the 2007 mobilization came through SBI rights issue while another 28 percent was taken up by Tata Steel.

By number, according to PRIME DATABASE, the year saw merely 23 companies using the rights route. This was lower by 23 percent over the previous year that had witnessed 30 issues (2006-07: 38 issues).

The largest issue of 2009 came from Hindalco (INR 5,048 crore). The other INR 1000 crore plus issues came from Tata Motors (4146) and Dish TV (1140). The response to the two biggest issues, i.e. Hindalco and Tata Motors was dismal, leading to devolvement.

The fiscal 2009-10 promised some action on the rights front. 20 companies applied for or obtained SEBI approval for raising INR 4198 crore. Some of the important ones include, Fortis Healthcare (INR 1000 crore), Magnum Ventures (INR 60 crore), Ramco Systems (INR 131 crore), Religare Enterprises (INR 1850 crore), SGN Telecoms (INR 50 crore), Syncom Formulations (INR 100 crore), Tebma Shipyards (INR 350 crore) and Wire and Wireless India (INR 450 crore). In addition, there were nearly 45 companies who were all set to tap the rights market. These include Bharat Forge (INR 400 crore), Birla Power Solutions, Chettinad Cement (INR 250 crore), DCW, Dewan Housing Finance (INR 105 crore), ECE Industries (INR 50 crore), Gremach Infrastructure Equipments, Gujarat NRE Coke, Horizon Infrastructure (INR 669 crore), Infomedia 18, Jaiprakash Associates (INR 1800 crore), JSL (INR 500 crore), Max India (INR 650 crore), Sadbav Engineering (INR 125 crore), Shopper's Stop (INR 300 crore), Suzlon Energy (INR 1800 crore), Swaraj Mazda (INR 80 crore) and Tata Communications (INR 1000 crore).

Now taking the case of 2010-11, i.e. when the said financial year was nearing end, it witnessed raising of INR 46,267 crore through public equity issues. The public issue in the mentioned fiscal year could have been higher but for the deferment of some giant PSU offerings and the continuing volatility in the secondary market, especially in the last quarter of the 2010-11, compared to INR 29,514 crore raised in the 3rd quarter, the 4th quarter witnessed mobilization of paltry amount of INR 4,468 crore. The year also fell short of INR 52,219 crore, the highest amount that had ever been raised, being in 2007-08. PSUs and PSU banks dominated the year with a total raising of INR 27,537 crore or 60 percent of the total amount. This was, however, lower than INR 31,082 crore that had been raised by them in 2009-10, which was the highest ever. Of the total amount of INR 27,537 crore, INR 22,763 crore was through divestments and INR 4,774 crore through fresh capital. A total of 7 PSUs forayed into the market during the year, led by the largest ever IPO in the Indian market that of Coal India (INR 15199 crore) which solely accounted for 33 percent of the year's mobilization. The other IPOs were from MOIL (INR 1,238 crore), SJVN (INR 1,063 crore), and PSB (INR 471 crore). The balance 3 were FPOs- PGCIL (INR 7442 crore), SCIL (INR 1165 crore) and EIL (INR 960 crore).

Thus, a total of 57 public issues forayed into the market during the year, compared to 44 issues in the preceding year, thereby registering a 30 percent increase.

CHAPTER-2

REVIEW OF LITERATURE

2.1 Literature Reviews

Numerous studies have observed the performance of initial public offerings (IPOs) in several markets. These studies documented that the initial underpricing is a common phenomenon in every stock market, with the amount of underpricing varying from one market to another. The majority of these studies focused on the equity markets of United States of America (Ibbotson 1975), (Ritter 1984), (Ritter 1991), (Aggarwal and Dahiya 2000), (Tinic, 1989), (Peavy 1990), (Loughran, Ritter et al. 1994), UK (Keasey and H. 1992; Levis 1993), Germany (Uhlir 1989; Ljungqvist 1997), Canada (Jog and L. 1987) (Suret, Cormier and Lemay, 1990), (Falk and Thornton 1992), (Jog and Siristrava 1994; Jog 1997; Kooli and Suret 2001), China (Dongwei and Fleisher, 1999), Switzerland (Kunz and Aggarwal 1994), Australia (Lee, Taylor et al. 1996). There are relatively lesser studies on IPOs in the equity markets pertaining to non-European countries. Among them, (Lee, 1996) investigates IPOs in Singapore; (Kim, 1995) in Korea, (Aggarwal, Leal et al. 1993) in Chile, Mexico and Brazil; (Firth and Liau-Tan 1997) in New Zealand, (Laiw, Liu et al. 2000) for Taiwan. These studies also report the existence of the initial underpricing in these markets.

Blum (1973) observed the issues of relative performance of the over-the-counter market with the initial common stock offerings, underpricing, and the risk associated. The total period covered in the study was from January 19th, 1965 to June 30th, 1970 with a random sample of 400 initial common stock offerings. The market returns risks involved with these 400 issues was computed for 16 time periods, ranging from one week to one year after the offering date. The study suggested that investment bankers have either underpriced or pushed in the after-market those IPOs in which they held a highest financial interest.

Ritter (1984) analyzed the 'hot issue' market of 1980 by taking into account 1028 issues during the period 1977-82 in United States of America. The initial percentage returns were computed which were not adjusted to the market movements. For each month in the period i.e. from January 1977 to December 1982, an equally weighted average initial return was computed by taking into account simple arithmetic average of the initial returns of all unseasoned new issues having offering dates in that month. For the period 1960-76, a monthly time series of the number of issues and average initial returns were collated and time series analysis was conducted for the 23 years period, i.e. for the period 1960-82. The results of the study revealed that there has been 3 or 4 periods during 1960-82 in which monthly average initial returns on unseasoned new issues has been substantially high for a long period. During the hot issue market of 1980, for 15-month period the initial return was 48.4% in comparison with the average initial return of 16.3% during the period 1977-82, the cold issue

market. The study also came up with a theoretical structure which explained the process of underpricing, i.e. 'Rock's theory of underpricing of Initial Public Offerings'.

Allen and Faulhaber (1989), Grinblatt and Hwang (1989), and Welch (1989) put forward an argument that firm has the most valuable information pertaining to the prospects of a new project, and that issuers overtly consider the possibilities of future equity issues when deciding initial public offer (IPO) prices. By signalling high-quality firms inveigle a true value of their shares by offering them at a discount, and then retain some of the shares of the new issues in their personal portfolio. Underpricing generates a positive impression in investors' minds, which assist the firm to sell the subsequent seasoned equity offerings (SEOs) at lucrative prices. Low-quality firms are discouraged from imitating the high-quality firms, because they are less likely to reap the benefits of IPO underpricing by selling their seasoned issues at higher prices. The evidence supporting signalling theory is rather mixed.

Chemmanur (1993) presented an information-theoretic model of IPO pricing in which insiders sell stock, both in the primary and secondary market, possess costly private information regarding the performance of the firm. High value firms, who were aware that they are going to pool with low-value firms, motivated outsiders to involve in information production by underpricing, which compensates outsiders for the cost of producing information. Thus underpricing results from insiders inducing information production in order to have a more precise valuation of their firm in secondary market.

Jegadeesh, *et al.* (1993) had tested the signalling model of underpricing. The sample period considered for the study was 1980 to 1986. The study covered all IPOs of the mentioned sample period but it considered only 'firm commitment' IPOs and excluded the best effort offerings. The outcome of the study showed that there exists a positive relation between IPO underpricing and the probability and size of the subsequent seasoned offering. But contrary to the basic impact of the signalling hypothesis, the evidence showed that issuers do not have to rely on the costly underpricing mechanism to signal to the market information pertinent for future equity issues. Therefore, the support for the signalling hypothesis as a significant determinant of IPO underpricing was found to be weak.

In India, Narasimhan and Ramana (1995) observed substantial underpricing of Indian IPOs consistent with international observations. Study also revealed that premium issues are underpriced than par issues. Shah (1995) studied the basic time-series properties of the number and value of Indian IPOs per month, variation in issue and listed price, factors leading to delay in listing, and modelling the cross-sectional variation of issue and listed price. 2056 IPOs traded and listed during 1991 – 1995 were chosen by the researcher in which 1819 (88.5%) provided positive returns from issue date to listing date and aggregate variation between issue price and listed price was 105.6%. Time series analysis showed a remarkable rise in the number of IPOs per month from 20 a month before the abolition of Controller of Capital Issues in May 1992 to the region of 80 a month from the later part of 1993 onwards due to the commencement of free pricing of securities.

MadhusoodananThiripalraju (1997) analyzed the Indian IPO market for the short term as well as long term underpricing. They also observed the impact of the issue size on the extent of underpricing in these offerings and the performance of the merchant bankers in pricing these issues. The study indicated that, in general, the underpricing in the Indian IPOs in the short run is higher than the experiences of other countries. In the long-run too, Indian offerings have fetched high returns to compared to negative returns reported from other countries. The study also revealed that none of the merchant bankers showed any better pricing capabilities.

Krishnamurti (2002) provided an evidence for the widespread underpricing of Indian IPOs by analyzing 386 IPOs in post liberalizing eon, from the period July 1992 to December 1994. The empirical evidence confirms the underpricing scenario in Indian market by using Raw Returns, Market Adjusted Returns. It also analyzed the factors responsible for the insidious and persistent occurrence of underpricing in the IPO market.

The researcher briefly explained the status of investment banking industry in India and has also outlined the regulations and processes involved in the new issue process in India. The researcher has pointed out that the top and established lead managers in the industry manages nearly 56% of the issues and thus he tried to convey that the market is being held by the top merchant bankers and they enjoy the lion's share in the market by analysing the overview of the investment banking industry.

The research findings, after empirical analysis, highlighted that underpricing comes down with increasing offer prices and believed that the offer is the proxy for the size of the firm. Secondly smaller firms are more risky since there exists higher magnitude of information asymmetry between insiders of the firm and outside investors (an important reason considered for underpricing).

The initial listing returns of IPOs are related to subscription levels and raw returns. Market adjusted returns are highly related with subscription levels. Underpricing is due to merchant bankers' inability to extent of demand for the issue at the offer price. Large time lags between setting up of the offer price and the offer opening date cause underpricing. In India, the lag period is usually three to four months long. Adverse market movements during the time lag may give birth to mis-pricing.

Singh (2003) has reported that the internationally observable phenomenon of IPO market is characterized by pervasive underpricing in the short run and under performance in the long run. Indian investors earned high returns up to a period of six months and thereafter the returns declined. The long-term investors who continue to hold their investments for a period of two- three years, experienced negative returns.

Arwah Arjun Madan (2003) assessed the long run performance of IPOs in the Indian primary market during the pre and post liberalization eon. A sample of 1597 companies having made IPOs during 1989 to 1995 at Bombay Stock Exchange, now BSE Ltd. were studied. Considering the net return, 79.4% of the total 1597 IPOs recorded a positive return on the listing day and 20.6% of IPOs registered negative returns.

Saurabh Ghosh (2004) stated that the Indian IPO market experienced a dramatic swing in terms of volume of new IPOs. The IPO volume series was auto correlated over the entire period and particularly during the hot period. This reveals a firm's decision to go public over the last decade depended on the number of other companies that were getting listed over the previous months. The autocorrelation in the underpricingseries was found to be weak as compared to the IPO volume series. Turning to the interrelation of volume and initial return, the empirical exercise (Granger causality test) found no significant relation between IPO volume and initial returns during the hot and cold period. This suggests that Indian Issuers' did not depend on the information content of the initial returns while taking their decision to go public. An important reason for these findings could be that, unlike the developed countries, it took a long time (more than six months on an average) for Indian companies to get actually listed on the stock market after the promoters decided to go public. Underpricing derived from the price changes over the six months (or more) perhaps also captured the changing investors' expectation with the availability of new information rather than investors' optimism *perse*. Thus, it can be concluded that corporate houses might have relied more on long lasting market sentiments to determine on the timing of their IPOs.

Omran, 2005; Reber and Fong, 2006; Khurshed, Pande and Singh, 2008 with the assistance of empirical evidences have suggested that IPOs are underpriced on the listing day.

Pandey (2005) studied initial returns (difference between issue price and listing price) and long run performance of IPOs. The researcher considered 84 IPOs from the period 1992-2002, coming out with fixed price and book building trajectory from the Indian capital market. The study revealed that the IPOs offered through fixed price method raised only a small amount of capital. On the contrary, IPOs offered through book building approach mobilized. It was further observed that IPOs offered through both fixed price and book building approach under performed in the first two years subsequent to listing.

Attempting to identify the casual variables responsible for underpricing of Indian IPOs, Chaturvedi, Pandey, and Ghosh (2006) observed that the extent of oversubscription of IPO determines the first day gain; signals that lead to oversubscription are market index during the period of IPO, type and nature of business, foreign collaboration, or the track record of promoters / company.

Kumar (2007) analyzed the short-run and long-run performance of IPOs issued through book building method. For the analysis, offer to close return, open to close return, buy and hold market adjusted return and monthly market adjusted returns were computed for 156 IPOs listed from 1999 to 2007. It was found that in the short-run, IPO listing didn't provide economically significant trading opportunities for day traders and in the long-run, IPOs beat the market after two years of listing.

ShikhaSehgal & Balwinder Singh (2007) investigated the initial and long-run performance of 438 IPOs listed on the BSE from 1992 to 2006. To observe the long-run performance of Indian IPOs, Buy-and-Hold Abnormal Returns (BHAR) and Cumulative Abnormal Returns (CARs) were computed for 120 months. Buy-and-hold

returns were found to be negative between 18 and 40 months of holding. After 40 months, the underperformance of IPOs has vanished, i.e. in India, underperformance persists for nearly one-and-a-half years to a little above three years.

Janakiramanan (2007) has studied the evidence of the long run underperformance in the Indian market. Priyanka Singh & Brajesh Kumar (2008) conducted an investigation on the short as well as long-run performance of the Initial Public Offerings in the Indian Capital Market. The study proposed an approach taking oversubscription variables along with age and issue size to explain the performance of IPOs in India. Since various sectors have varied level of private and public information, the researchers performed industry wise analysis. The period for the study was 22 months (Jan, 2006- Oct, 2007) considering 116 IPOs. It was observed that both short and long run return of IPOs are positive for this period. In the short run, only 18% of IPOs listed price was more than offer price and in the long run, it was only11.5%. Oversubscription variables, namely, total oversubscription, institutional investors and retail investors oversubscription, were found to be the main determinants for listing and offer price performance of Indian IPOs. Infrastructure, financial and entertainment sectors with positive long run return fell under this category for the period of study. On the contrary, IT sector gave higher initial return but negative return in the long run.

Garg, Arora, and Singla (2008) also documented that Indian IPOs are substantially underpriced and observed that the level of underpricing does not vary significantly in the hot and cold IPO market.

Satyendra K. Singh (2008) have explained the under pricing scenario of the common stock for initial public offerings (IPO). Book-building company was made mandatory for the companies during the year 2000-01. Accordingly, it was decided that 60% of the offer must be allotted to Qualified Institutional Buyers. The main purpose of the study was to comprehend the relationship between performance of index and the average returns on the IPO.

Chopra (2009) carried out an analysis of long and short term performance of initial public offers (IPOs) of Indian companies and reached the conclusion that there is an existence of underpricing in the initial public offers (IPOs) listed in National Stock Exchange (NSE). He observed that underpricing is extremely high in the short run, especially in the next six months from the day initial public offers (IPOs) are listed. He also observed that investors holding their equities for a longer period witnessed normalisation in the value of initial public offers (IPOs), i.e. the initial public offrs (IPOs) tends to attain their true value, thereby, driving out the underpricing effect.

Seshadev Sahoo and Prabina Rajib (2010) attempted to specify the relationship between post-issue promoter groups' retention and IPO performance on listing . The researchers investigated the impact of financial variables,i.e., offer size, times subscribed, age of the firm, book value, leverage, market volatility, ex-ante uncertainty and the post issue promoter group holding on listing performance of an IPO. 92 IPOs from manufacturing and non manufacturing sectors were used as sample and found that in 46.55% of IPOs, lisiting price was more than the offer price during 2002 - 2006. The study documented a positive relationship between post-issue

promoter group holding and IPO performance on listing . The results further indicated that offer size, times subscribed and post-issue promoter group holding were statistically significant in influencing the performance of listing.

Jotwani and Singh (2011) mentioned that the subscription rate of the IPO plays a crucial role only in short run. Investors may try to analyze the demand-supply scenario of the IPO before investing, which has little importance in the long run. They also mentioned the objective of the IPO showed its importance only in the long run, i.e., five years after the issue of initial public offer (IPO).

Bandgar & AtulRawal (2012) studied the impact of pricing of Banks IPOs in long and short run. The researchers also evaluated the effect of size and issue nature (par, premium or at discount) of IPOs on its pricing. A sample of 10 banks was selected randomly which issued their equities through initial public offering (IPO) during the period 2000 – 2010. It was found that the average return in short run was at - 8% and long run was at - 53%. Further findings from the study revealed that big issue size IPOs got listed with a higher listing price and the small issue size IPOs got listed with a lower listing price. IPOs with lower issue price gave more returns on the listing day than the IPOs with higher issue price. Private sector banks IPO's gave higher return than the public sector banks IPOs during the study period

Ganesamoorthy & Shankar (2012) attempted to study the price behaviour of IPOs and its persistent effect after listing . For this purpose a standard event study methodology by taking market adjusted return model was used. As per the methodology, Annual average abnormal return (AAR) and cumulative average abnormal return (CAAR) were calculated along with the t-statistics for testing significance. The study covered a ten years period from 2001 to 2010. 219 initial public offerings made by Indian companies during the period were selected as sample for the study. The overall result indicated that the issue price was more than listed price for the Indian IPOs during 2001 to 2010. Even though the AAR on the first trading day was more than one per cent, in the subsequent days the price was adjusted by the market. CAAR at the end of the event window (75th day) stood at -10.7 per cent. The negative CAAR of 68 days out of 75 days were found to be significant, which strongly indicate the underperformance of Indian IPOs during the period.

Several researchers have observed that issuers or underwriters are able to successfully time their offerings when the market is optimistic about IPOs in general and when the demand for IPOs is high, in order to attain a smooth distribution of shares and collect a mammoth amount of capital (Derrien and Womack 2000) suggest that the current market climate plays a pivotal role in establishing an IPO's underpricing. Indeed euphoric or hot market, investors may be overly optimistic about a firm's prospects causing the aftermath equilibrium price to be greater than in normal conditions. Market climate not only affects the number of successful offerings but also the quantum and the variability of IPOs underpricing .Kooli and Suret(2001) reports, that when market is 'hot', the level of underpricing may double or even triplicate. If market is 'cold' the level of underpricing would be much lower.

Studying book-built and fixed-price IPOs in India, Bora, Adhikary, and Jha (2012) observed underpricing of 21.42% for fixed-price IPOs and 18.22% for book-built

IPOs. However, when adjusted for market movement, the corresponding figures are 16.71 and 16.75 respectively.

Einar (2015) using a sample of more than 5,000 IPOs, documented noteworthy abnormal returns up towards 5% (excluding Initial Day Returns) during the first months of trading. These abnormal returns are higher and more persistent if general market conditions are robust, supporting a bounded rationality explanation.

The ensuing literature reviews have focused on the impact of global economic crisis on the initial public offering (IPO) of foreign countries with a tinge

According to the report titled, "Finance & Private Sector Development Africa Region", World Bank (2009), in Kenya since the beginning of July 2008 the Nairobi Stock Exchange 20 Share Index fell 48 percent. Further, Kenya's macroeconomic prospects were also heavily impacted due to food and fuel price inflation of early 2008 that resulted in enhanced pressures on consumer prices. All these resulted into under subscription of Co-operative Bank's initial public offering (IPO) by 30 percent against a target of Ksh 6.7 billion.

INSG Insight (2008), stated that as the global economic mayhem spread in the equity markets, it became more tough to procure capital by issue of initial public offering (IPO). By late 2008, global IPO activity fell to its lowest level since 2003. In the third quarter of 2008, a total of 159 IPOs globally raised US$ 13.1 billion in capital. This was the lowest level of quarterly activity by number of deals and capital raised since the second quarter of 2003, which recorded 130 IPOs and US$ 6.8 billion in cumulative capital. Between the second and third quarters of 2008, the value of funds raised via IPOs fell by 66%. This phenomenon had a debilitating impact on IPO issue of banking sector also.

Olokoyo Omowummi Felicia and Ogunnaike, Olaleke Oluseye stated that the global financial crisis impacted the Nigerian banking industry. It impacted both Broad and Narrow money. During the global economic crisis, the Broad and Narrow money contracted by 1.9% and 3.9%. Further, both lending and deposit rates soared since the global financial crisis began. According to CBN Annual Report (2008) indicated that the maximum lending rate enhanced from 8.13% to 9.97%. All these resulted in confidence crisis in the banking industry and consequently to the capital market downturn, thereby impacting the initial public offering (IPO) of Nigeria's banking sector.

Massimiliano Cali, Isabella Massa and Dirk Willem teVelde (2008) mentioned about the fall in equity and bond issuances and sell-off of risky assets in developing countries is an evidence to comprehend the severity of the financial scenario during the global economic crisis. According to World Bank (2008), between January and March 2008, equity issuance by developing countries reached its lowest levels in the last five years, i.e. a meagre amount of $ 5 billion. This straightaway resulted in a substantial decline in initial public offering (IPO). The World Bank (2008) stated that 91 IPOs were withdrawn or postponed in the first term of 2008.

According to a report of AL MASAH Capital Limited titled, "MENA & India- China IPO Review', despite global financial crisis weakening IPO activity since the second

half of 2008, some signs of recovery were noticed at the end of 2009 and the first quarter of 2010. The economic slowdown that cast a shadow on the markets across the globe from 2008 end until 2009 adversely affected IPO activity in MENA economies.

During 2009, MENA markets raised USD 12.8 billion from 191 IPOs registering a decline of 82% y-o-y basis. However, financial companies / banks continued to launch the most IPOs in the MENA region with the sector cajoling 85 IPOs worth USD 7.9 billion in 2009.

2.2 Identification of Research Gaps

S.No	List of literature review of selected research papers / thesis	Research Gaps
01	Faulhaber (1989), observed that in some circumstances good firms want to "signal" to their investors about their good prospects and thus underprice their IPOs.	The study missed out the post listing of IPO performance, i.e. overvaluation aspect
02	Omran, (2005); Reber and Fong, (2006); Khurshed, Pande and Singh, (2008) suggested that IPOs are underpriced on the listing day	The study missed out the underpricing / overpricing phenomenon after certain period of listing, i.e. 1 year, 2 years, 3 years etc. from the date of listing.
03	Jotwani and Singh (2011) stated that subscription rate of the IPO plays a crucial role in short run.	IPO undervaluation / overvaluation facets was not covered in the study.
04	Chopra (2009) conducted analysis of long and short performance of Indian IPOs and concluded that underpricing is existing in national stock exchange and is more acute in the short run periods, i.e. from the listing day to six months after the listing. He further observed that investors holding their equities for longer period, the long run IPO tends to move to their true value driving out much of underpricing.	At times in the long-run also, the stock tends to be underpriced. In other words, the returns from the stock post listing in the short period is promising.

2.3 Literature Review Details

S.No.	Type of Literature Review	Indian	International	Total
1	Total References	119	20	139
2	Scenario of Indian Capital Market	7	0	7
3	Notable Developments in Indian IPO Market and Need for Indian Banking Sector to Espouse IPO Trajectory	8	0	8
4	Impact of Global Economic Crisis on initial public offering (IPO) of selected foreign countries	0	8	8
5	Recapitalisation of banks in India and need for espousing initial public offering (IPO) / follow on public offer (FPO) / offer for sale (OFS) by both banks and non-banking finance companies (NBFCs) that have been considered for the research study and other vital facets.	29	0	29
6	Regulatory Dimensions	4	0	4
7	Research Methodology	5	3	8
8	Others	66	9	75

CHAPTER-3

RESEARCH OBJECTIVES AND FORMULATION OF HYPOTHESIS

3.1 Research Objectives and Scope

The research objectives have been developed from the research problem statement after an in-depth study of the domain area and literature review. The objectives of the research study are as under:

a) To ascertain the trend of IPO investing / issue in India with special reference to Banking and Non-Banking Finance Companies.

b) To ascertain the impact of Global Economic Crisis on initial public offering (IPO) issue, with special reference to Indian banking sector.

c) To comprehend the initial public offering (IPO) performance of Banking and Non-Banking Finance Companies (NBFCs).

In order to ascertain the aforesaid objectives, Initial Public Offers (IPOs) / Follow-on Public Offers (FPOs) / Offer for Sale (OFS) issued by both public and private sector banks and Non-Banking Finance Companies (NBFCs) that formed the part of the research study have been taken into consideration. Further, the impact of Global Economic Meltdown on initial public offer (IPO) of Indian banking sector have been also studied. Since global economic meltdown spread like a contagion and affected almost majority of capital markets across the globe, it creates substantial academic and research interests to explore the impact of global economic crisis on initial public offer (IPO) of both public and private sector banks considered for the research study.

In order to know the performance of initial public offer, it is imperative to focus on its post listing performance also, as high return post listing of initial public offer (IPO) implies subscribers or shareholders stands benefitted. In view of this, an endeavour have been made to observe the post listing initial public offer (IPO) performance of banks and Non-Banking Finance Companies (NBFCs) considered for the research study in terms of Initial Return or Raw Return on stocks and Market Adjusted Excess Return (MAER) on stocks and other significant financial variables, such as, Return on Assets (ROA); Return on Equity (ROE); Reported Net Profit after Tax (PAT) and most importantly Non-Performing Assets (NPAs).

3.2 Hypothesis

The research study comprises of qualitative as well as quantitative study. Hypothesis of the studies with their rationale are as under:

Hypothesis 1: The Global Economic Crisis does not affected initial public offer (IPO) issue of Banking industry with reference to Cement & Construction and Engineering sectors of India.

Rationale: The rationale for considering the Cement & Construction and Engineering sectors in association with the Banking sector for undertaking a comparative study of the impact of Global Economic Crisis on their IPO issue are as under:

Cement & Construction sector

i) With volume of production at 477 million tonnes (MT), India occupies second position in the world in cement production.

ii) Cement production in India rose from 230.49 million tonnes in 2011-12 to a mammoth 297.56 million tonnes in 2017-18.

iii) Existing companies in the cement sector are making substantial investments in order to increase their capacity.

iv) The stoking up of investments in Cement & Construction sector is supported by burgeoning real estate sector and high government expenditure on projects relating to smart cities and urban infrastructure.

Engineering sector

i) The prodigious growth of Indian Engineering industry / sector over the last few years fuelled by enhanced investments in infrastructure and industrial production.

ii) The Engineering sector is of strategic importance for Indian economy due to its bonding with other two vital sectors, i.e. manufacturing and infrastructure.

iii) A large number of foreign players are inveigled towards Indian engineering sector due to the comparative advantage enjoyed by the engineering sector on the basis of manufacturing costs, technology and in addition to the aforesaid points, both Cement & Construction and Engineering sectors occupies a prominent position in the Indian economy. They play an important role in providing a fillip to the economic development and companies operating in these sectors incur huge capital expenditures for growth and expansion and IPO forms a major component of long term source of finance in meeting their growth and expansion requirements.

This hypothesis assist in accomplishing the second objective of the research study, i.e. impact of Global Economic Crisis on initial public offering (IPO) issue of Indian banking sector with additional inputs as to whether the mentioned economic crisis impacted equally or not on the initial public offering (IPO) of other two significant sectors of Indian economy, i.e. Cement & Construction and Engineering vis-a-vi Indian banking sector.

Hypothesis 2: There is no significant difference in the initial public offer (IPO) issue (volume wise) of Indian Banking industry during pre and post Global Financial Meltdown.

Rationale: Global Economic Crisis or Global Meltdown was a great financial shock that created tremors across the capital markets of various economies. In this regard, it generates substantial academic and research interests to explore its impact on Indian capital market also, with special reference to initial public offer (IPO) issue of Indian Banking sector. With the objective of ascertaining the magnitude of impact of the global economic crisis, the hypothesis takes into account the pre and post global economic crisis IPO scenario of Indian Banking and Non-Banking Finance Companies.

The aforesaid hypothesis assist in achieving the second objective also, i.e. the onslaught of global financial meltdown on initial public offer (IPO) of Indian banking industry.

Hypothesis 3: There is no significant difference in the Return on Assets (ROA) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Rationale: Since Return on Assets (ROA) exhibits profitability of a company in relation to its total assets, it is of great research interest to ascertain as to how issue of initial public offers (IPOs) by both public and private sector banking companies of India that have been taken into consideration for the research study have exerted an impact on their ROA or not during the period mentioned in the hypothesis. Further, assets, particularly the fixed assets are procured from long term source of finance and capital raised through IPO are utilized for financing the investments in fixed assets, which in turn assist in generation of earnings for the company, in view of this, the analysis holds tremendous significance.

Hypothesis 4: There is no significant difference in the Return on Equity (ROE) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Rationale: The equity shareholders who really own the company, espouses the maximum risk and get residual amount realized from the sale of assets, if available, at the time of winding up of the company. In view of this, it is imperative to find out that whether money procured byboth public and private sector banking companies of India that have been taken into consideration for the research study have exerted an impact on their Return on Equity (ROE) or not during the period mentioned in the hypothesis.

Hypothesis 5: There is no significant difference in the Return on Assets (ROA) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016.

Rationale: Since Return on Assets (ROA) shows the profitability of a company in relation to its total assets, it is of great research interest to ascertain the post initial public offer(IPO) issue impact on the Return on Assets (ROA) of Non-Banking Finance Companies (NBFCs) of India operating under both public and private sector that have been considered for the research study during the period 2012-2016.

Hypothesis 6: There is no significant difference in the Return on Equity (ROE) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016.

Rationale: Since the equity shareholders are the risk bearers of the company in true sense, in light of this fact, it becomes imperative to delve deep into the post initial public offer (IPO) issue impact on the Return on Equity (ROE) ofNon-Banking Finance Companies (NBFCs) of India operating under both public and private sectors that have been considered for the research study during the period 2012 – 2016.

The Hypothesis 3 to 6 fulfils the third objective of the research study substantially, i.e. the post initial public offering (IPO) performance of banking and Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors that have been considered for the research study with reference to two significant financial variables, i.e. ROA and ROE.

It is to be noted that the first objective of the research study, i.e. trend of initial public offering (IPO) investing / issue in India with special reference to Banking and Non-Banking Finance Companies have been covered through descriptive study under various chapters of the research study.

CHAPTER-4

RESEARCH METHDOLOGY

4.1 Overview

In order to accomplish the final outcome in a research study, a trajectory is required and that path is provided by the research methodology. Research methodology embraced for this research study is described in the following sub sections: Research Design; Sources of Data and Data Analysis techniques, i.e. various statistical and financial tools that have been used for analyzing primary and secondary data. Further, the rationale for using various statistical and financial tools has also been elucidated.

4.2 Research Design

Both descriptive and analytical form of research has been used in this research study. Descriptive study entails the study of the following crucial facets- Overview of capital market; Scenario of Indian capital market; Need for banking sector to espouse IPO trajectory; Notable developments in Indian IPO market; Non-Banking Finance Companies (NBFCs); Role and performance in IPO by NBFCs etc.

Coming to analytical study which covers major portion of this research work have duly focused upon the key financial variables, that is, Reported Net Profit after Tax; Non-Performing Assets (NPAs); Return on Assets; Return on Equity; Initial or Raw Return on Stock and Market Adjusted Excess Return (MAER) on Stock as they play a vital role in gauging performance of initial public offer (IPO) of banks and Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors that have been considered for the research study.

4.3 Population

Population refers to the complete group of people, events or things of interest that the researcher wishes to explore and wants to make inferences based on sample statistics (Sekeran&Bougie, 2010).

The population for the research study comprised of Academicians; Business / Financial Analysts; Entrepreneurs; Stock Brokers; Researchers and others that comprises of investors. As it is a niche area of research unlike other research areas, wherein a majority of the population possess a fair knowledge on the topic pertaining to the research study, this research study demands requisite wisdom, expertise and experience pertaining to initial public offerings, especially on initial public offerings

(IPOs) of banks and non-banking finance companies, the population considered for collating sample have been restricted to the aforesaid category of respondents.

4.4 Sampling Technique

Sampling is a method used in statistical analysis in which a predetermined number of observations are taken into account from a bigger population.

In this research study, samples have been collected by using Convenience Sampling technique. The rationale for using the mentioned sampling technique is that to obtain proper responses pertaining to IPOs of banking and non-banking financial companies calls for an in-depth knowledge with sufficient experience and expertise in the area of IPOs, it would not have been apt to contact the respondents on a random manner.

Thus, selected group of people possessing the above mentioned requisites were selected for collating the sample in order to ensure academic relevance of this research study.

Total 257 samples were collected. The sample size was derived scientifically by considering the population size of approximately 5000, as being a niche area of research, a limited size of population was taken into consideration, keeping in view the specialized knowledge and expertise required for providing appropriate response on the questionnaire.

It is to be noted that sampling size determination formula provided by Krejcie and Morgan was used.

$$\mathbf{s = X^2\ NP\ (1\text{-}P) \div d^2\ (N\text{-}1) + X^2\ P\ (1\text{-}P)}$$

s = required sample size.

X^2 = the table value of chi-square (1 degree) of freedom at desired confidence level (3.841).

N = the population size (420).

P = the population proportion (assumed to be .50 as this would give the maximum sample size).

d = the extent of accuracy expressed as a proportion (.05).

Substituting the requisite values in the aforesaid formula, we get:

$s = 3.841 \times 5000 \times 0.5\ (1 - 0.5) / (0.05)^2 \times (5000\text{-}1) + 3.841\ (1 - 0.5)$

s = 4801.25 / 14.41 = 333.18 = 333 (rounding off).

Thus, online questionnaire was sent to 333 respondents, but responses were received from 257 respondents.

The aforesaid formula for determination of sample size has been referred from a research paper titled, "Socio-Economic Determinants of Growth of Rural Entrepreneurship in Sonitpur District of Assam- an Empirical Study.

4.5 Data Collection

For undertaking the research study in an efficient manner both forms of data, i.e. primary as well as secondary have been collated and analyzed. A questionnaire was circulated through online among various respondents to procure primary data. Responses were received from 257 respondents. Data was collated from Academicians; Business / Financial Analysts; Entrepreneur; Stock Broker; Researcher and others. Questions covered in the questionnaire are almost '*Closed Ended Questions*' with one question being open-ended in nature. Questions 6 to 14 are closed ended and last question, i.e. Question 15 is open-ended in nature (please refer the questionnaire appended below).

For the collation of secondary data various authentic sources have been referred. In view of this, the data / information available online on the websites of SEBI, leading Indian stock exchanges- BSE Ltd. and NSE Ltd. various prominent firms actively engaged in the Indian capital market research along with articles, research papers, business newspapers / journals etc. have been referred.

4.6 Statistical and Financial Tools

a) *Karl Pearson's Co-efficient of Correlation*- It quantitatively measures the magnitude of relationship between the two variables x and y. The ratio between the co-variance between two variables to the product of their standard deviations is known as Karl Pearson's Correlation Coefficient.

By using the mentioned statistical tool the correlation between the IPOs issued (value-wise) by the banks selected for the research study and their Reported Net Profit after Tax (PAT) and Non-Performing Assets (NPAs) will be determined, thereby, providing us with key insights pertaining to performance of Initial Public Offerings (IPOs), with reference to the mentioned significance financial variables.

b) *Parabolic trend equation*- A quadratic trend equation has the form $Yt = a + bX + cX^2$ and its graph is called a second degree parabola and hence the name second-degree parabolic trend.

The mentioned statistical tool will help in ascertaining the projected values of initial public offers (IPOs) of Indian capital market. Since in the computation of forecasted IPO values, a comprehensive scenario of IPO of Indian capital market have been considered, it will provide a broader view pertaining to the future IPO issue trend of banking and NBFCs also.

c) F-test (One Factor Model)- F-statistic is a ratio of two variances. This test will explain the performance of initial public offer (IPO) of banks and Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors considered for the research study with reference to their significant financial variables, i.e. Return on Assets (ROA) and Return on Equity (ROE).

d) Kruskal Wallis Test or H-Test- The Kruskal-Wallis test is a nonparametric (distribution free) test, and is usedwhen the assumptions of one-way ANOVA are not met. The mentioned statistical tool will be of immense assistance in comprehending that during pre and post Global Financial Meltdown the initial public offer (IPO) issue (volume wise) of Indian banking sector have been affected or not with reference to other two crucial sectors of Indian economy- Cement & Construction and Engineering.

Therefore, through this test an understanding pertaining to the performance of IPO of banking sector in terms of quantum of IPO issue pre and post Global Economic Crisis vis-a-vi the other two crucial sectors of Indian economy, i.e., Cement & Construction and Engineering. Since, Cement & Construction and Engineering sectors have witnessed a robust growth in recent years and being the pivot of infrastructure development of Indian economy involving huge capital outlay, it trigger paramount academic and research interests to study IPO performance of banking with Cement & Construction and Engineering sectors.

e) Mann Whitney U-Test: It is a non-parametric test that is used to compare two sample means that come from the same population, and to test whether two sample means are equivalent or not.

This statistical test will help in finding out the initial public offering (IPO) issue scenario of Indian banking sector pre and post Global Economic Crisis. This statistical tool to a great extent supplements the findings obtained through Kruskal Wallis Test or H-Test, i.e. how IPO of banking sector performed issue wise pre and post Global Economic Crisis.

f) Initial or Raw Return and Market Adjusted Excess Return (MAER) on stocks:

In view of the fact that this research study have taken into consideration of underpricing of initial public offers (IPOs) in Indian market, it generates substantial academic and research interests to explore how the stocks of banking and non-banking financial companies (NBFCs) that have been considered for the research study have performed in terms of pricing, i.e. overpricing or underpricing post their listing in stock exchanges. Since equity shareholders are the owners of the company and so it is quite interesting to ascertain whether their subscription to equity shares post listing have assisted in enhancing their wealth or have lead to wealth erosion. Further, from banks and non-banking finance companies perspective also, it is imperative to know that whether issue of initial public offer (IPO) have been a boon or bane in terms of overpricing or underpricing of their stocks. In view of the aforesaid fact, Initial Return or Raw Return on Stock and Market Adjusted Excess Return (MAER) has been used. These two financial tools will help in ascertaining the

post initial public offer (IPO) listing performance of both public and private sector banks and Non-Banking Finance Companies (NBFCs) of India taken into account for conducting the research study.

g) Standard Deviation and Co-efficient of Variation: This statistical tool will assist in ascertaining as to which year / (s) have been opportune for the initial public offer (IPO) issue in case of both public and private sector banks and Non-Banking Finance Companies (NBFCs) of India considered for the research study.

4.7 Limitations of the Study:

1) Due to non-availability of information on Initial Public Offers / Follow-on Public Offers / Offer for Sale of Cooperative Banks, Regional Rural Banks and several Non-Banking Finance Companies (NBFCs), they have been kept outside the scope of the research study.

2) Only those banks have been considered for the research study which came up with Initial Public Offers / Follow-on Public Offers / Offers for Sale during the period 2000-2015. In case of NBFCs, only those NBFCs have been covered in the research study of which Initial Public Offers / Follow-on Public Offers / Offers for Sale related details were available.

3) Impact of Eurozone Crisis on the issue of Initial Public Offers / Follow-on Public Offers/ Offer for Sale of banks and NBFCs have not been covered.

4.8 Focused Group Discussion

A focus group discussion is a qualitative research technique used in social science research. In this study the purpose of the focus group discussion is to understand the reasons for the broad findings of the research which in turn help in augmenting the findings of the study. In this study one focus group discussion was conducted among the bankers.

It is to be noted even for the second and third topics wherein NBFCs have been also covered along with the banks, i.e. impact of IPO (Initial Public Offering) issue on the two significant financial variables, i.e. Return on Assets (ROA) and Return on Equity (ROE) of banks and Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors considered for the research study during the period 2000-2015 and conduciveness of current economic scenario for IPO issue by banks and NBFCs, views have been collated from bankers only, as they posses in-depth knowledge on banking related matters, like, impact of key financial variables on the profitability, return assets and equity of banks and financial institutions, factors triggering credit growth, financial products, merger and acquisitions of banks and financial institutions etc. Thus, NBFCs being a financial institution and despite being termed as non-banking finance companies are involved in lending and other financing-related activities, in view of this, the bankers do possess substantial knowledge pertaining to the vital topics like, impact of IPO issue on Return on Assets

and Equity of NBFCs in India and conduciveness of current Indian economic scenario for IPO issue by NBFCs.

Table 4.1

Details of Focused Group Discussion

Particulars of Focus Group Discussion	**Focus Group Discussion**
Date of FGD	12th December, 2018
Place of FGD	New Delhi
Nos.of Participant	04
Type of Participant	Bankers
Name and Profile of the Participant	1) Mr.Kunal Kumar, Branch Manager, State Bank of India
	2) Mr.ParmeshwarMahto, Manager, United Bank of India
	3) Ms.Priyanka Das Srivastava, Manager, UCO Bank
	4) Mr.Pratyush Srivastava, Senior Manager, YES Bank
Discussion Topics	1) Existence of strong correlation between IPO issues (value-wise) and Reported Net Profit after Tax (PAT) of banks operating under both public and private sectors considered for the research study during the period 2000 - 2015. 2) Impact of IPO issue on both public and private sector banks and Non-Banking Finance Companies (NBFCs) Return on Assets (ROA) and Return on Equity (ROE) taken into account for conducting the research study during the period 2000 – 2015. 3) Conduciveness of current economic scenario for IPO issue by banks and NBFCs.

The outcome of the discussion will be presented in Chapter 8- Findings, Discussion and Conclusion as a support to the researcher opinion and literature review.

CHAPTER-5

DATA ANALYSIS AND INTERPRETATION

5.1 Karl Pearson's Coefficient of Correlation.

Variables considered- a) IPO issue of both public and private sector banks considered for the research study and b) Reported Net Profit after Tax (PAT) of both public and private sector banks considered for the research study.

Through Karl Pearson's Coefficient of Correlation a research endeavour has been made to know whether there exists a positive or negative or no correlation between two vital variables, i.e. Initial Public Offer (IPO) issue of both public and private sector banks that have been taken into consideration for the research study and their reported net profit after tax (PAT). No doubt, there are various economic factors that may exert an impact on the profitability of banking companies in India but in this section, an attempt has been made to ascertain the magnitude of impact of initial public offer (IPO) of banks considered for the research study on a key financial variable, i.e. Reported Net Profit after Tax (PAT), since IPO assists phenomenally in procuring of long-term finance that are invested in acquisition fixed assets, mergers, acquisitions, for expansion of business operations in the form of establishing new branches, increasing the scale of operations of new branches etc. It is important to note that the mentioned avenues of investments play a crucial role in stoking up the profitability of banking companies. Keeping this significant point in view, a correlation have been found between the above mentioned variables.

Table 5.1

List of Public and Private Sector Banks considered for the Research Study and Value of IPO / FPO / OFS issued by these banks

S.No.	Name of the Bank	Notation	IPO / FPO / OFS (INR Crore) and Year
1	Allahabad Bank	A	INR 100 Cr. (2002) INR 820 Cr. (2005)
2	Andhra Bank	B	INR 150 Cr. (2001) INR 765 Cr. (2006)
3	Bank of India	C	INR 211.17 Cr. (2007)
4	Bank of Maharashtra	D	INR 230 Cr. (2004)
5	Canara Bank	E	INR 385 Cr. (2002)
6	Indian Overseas Bank	F	INR 111.20 Cr. (2000) INR 240 Cr. (2003)
7	Punjab National Bank	G	INR 164.49 Cr. (2002)
8	UCO Bank	H	INR 240 Cr. (2003)
9	Union Bank of India	I	INR 288 Cr. (2002) INR 495 Cr. (2006)
10	Vijaya Bank	G	INR 240 Cr. (2003)
11	ICICI Bank Limited	K	INR 3150 Cr. (2004) INR 5750 Cr. (2005) INR 8750 Cr. (2007)
12	Syndicate Bank	L	INR 250 Cr. (2005)
13	Yes Bank Limited	M	INR 315 Cr. (2005)
14	Oriental Bank of Commerce	N	INR 1450 Cr. (2005)
15	Development Credit Bank Limited	O	INR 185.90 Cr. (2006)
16	The South Indian Bank	P	INR 165 Cr. (2006)
17	Bank of Baroda	Q	INR 1633 Cr. (2005)
18	Central Bank of India	R	INR 816 Cr. (2007)
19	Indian Bank	S	INR 1000 Cr. (2005) INR 782.15 Cr. (2007)
20	Punjab & Sind Bank	T	INR 480 Cr. (2010)

Table 5.2

Classification of Public and Private Sector Banks of India

S.NO	Banks operating under Public Sector	S.NO	Banks operating under Private Sector
1	Allahabad Bank	17	ICICI Bank Limited
2	Andhra Bank	18	Yes Bank Limited
3	Bank of India	19	Development Credit Bank Limited
4	Bank of Maharashtra	20	The South Indian Bank
5	Canara Bank		
6	Indian Overseas Bank		
7	Punjab National Bank		
8	UCO Bank		
9	Union Bank of India		
10	Vijaya Bank		
11	Syndicate Bank		
12	Oriental Bank of Commerce		
13	Bank of Baroda		
14	Central Bank of India		
15	Indian Bank		
16	Punjab & Sind Bank		

Table 5.3

Karl Pearson's Coefficient of Correlation- Banks IPO and PAT

Years	IPO values of Public & Private Sector Banks (INR Crore) (X)	Reported Net Profit After Tax of Public & Private Sector Banks (INR Crore) (Y)	dx^2	dy^2	dxdy
2000	111.20	40.34	8,042,896	3,232,804	5,099,128
2001	150	121.19	7,823,209	2,948,089	4,802,449
2002	385+164.49+ 288+100 = 937.49	741.40+562.39+ 314.13+80.21= 1698.13	4,040,100	19600	281,400
2003	240+ 240= 480	416.10+196.55= 612.65	6,086,089	1,500,625	3,022,075
2004	230+3349= 3579	222.02+ 1,637.11= 1859.13	399,424	441	13,272
2005	250+315+820+3120+2497+ 1450= 8452	2,005.20+ 438.06+ -3.76 +541.79+ 1,410.12+726.07= 5117.48	30,305,025	10,751,841	18,050,895
2006	185.9+495+165+ 765+1633= 3243.9	-85.26 + 675.18 + 50.90 + 552.02 + 1,050.07= 2242.91	88,209	164,025	120,285
2007	816+782.145 + 8750 = 10348	503.79 + 759.77+ 2633.40 = 3897	54,774,801	4,239,481	15,238,659
2008	1359.81	1,960.28	2,518,569	14,884	193,614
2010	480+330 = 810	508.80 + 322.36= 831.1 6	4,566,769	1,014,049	2,151,959
	∑X= 29471.4	∑Y = 18380.27	$\sum dx^2$ = 118645091	$\sum dy^2$ = 23885839	∑dxdy = 48973736

Notes:

1) *For calculation purpose the values of Initial Public Offers (IPOs) / Follow-on Public Offers (FPOs) / Offer for Sale (OFS) have been summed up.*

2) *It is to be noted that in the Karl Pearson's Coefficient of Correlation analysis appended below have taken into consideration the value of initial public offers (IPOs) / follow-on public offers (FPOs) / offer for sale (OFS) issued by the banks of India operating under both public and private sectors that have been considered for the research study till 2010, since post 2010, there have been no issue of initial public offers (IPOs) / follow-on public offers (OFS) / offer for sale (OFS) neither by public nor private sector banks of India taken into account for conducting the research study.*

Result of the Karl Pearson's Coefficient of correlation and Coefficient of Determination.

Coefficient of correlation: r = $\sum dxdy / \sqrt{\sum dx^2 \times \sum dy^2}$

r = 0.92

Therefore, Karl Pearson's Coefficient of Correlation = 0.92

Coefficient of Determination = $r^2 = (0.92)^2 = 0.85$

Decision: Therefore, from the value of Coefficient of Correlation, it may be inferred that a strong correlation exists between the two variables, i.e. initial public offers (IPOs) issued by the banks of India operating under both public and private sectors, that have been taken into account for conducting the research study and their Reported Net Profit after Tax (PAT).

Further, by observing the value of Coefficient of Determination, i.e. 0.85, it may be opined that the variation in the dependent variable, i.e. Reported Net Profit After Tax (PAT) of the banks of India operating under both public and private sectors, that have been taken into account for conducting the research study is largely influenced by the change in the independent variable, i.e. initial public offers (IPOs) of the banks of India operating under both public and private sectors, that have been taken into consideration for conducting the research study.

Thus, the performance of initial public offer (IPO) of Indian banking sector have been quite encouraging in view of the fact that it has contributed immensely in enhancing the Reported Net Profit after Tax (PAT) of both public and private sector banks considered for the research study.

However, as mentioned that there may be various economic factors that drive the profits of banking companies in India, so they also cannot be ignored but as far as initial public offer (IPO) factor is concerned it may be said without an iota of doubt that banks considered for the research study have reaped prodigious gains in terms of Reported Net Profits after Tax (PAT).

Karl Pearson's Coefficient of Correlation.

Non-performing Assets is a menace for Indian banking sector and have exerted a debilitating impact on its operations. In view of this, it triggers enormous research interest to ascertain that whether non-performing assets (NPAs) of the banks of India operating under both public and private sectors considered for the research have exerted an impact on their initial public offers (IPOs) during the period 2010-2015. However, before gauging the impact of non-performing assets of both public and private sector banks of India considered for the research study on their initial public offering (IPO), a quick look of non-performing assets of Indian banking indusry during the period 2000-2015 will provide a broad idea pertaining to the trend of NPA (Non-Performing Assets) of Indian banking sector.

Table 5.4

A Glimpse of NPA of Indian Banking Sector (2000-2015)

Year	Net NPA (INR Cr.)
2000	32632
2001	35554
2002	29692
2003	24396
2004	21754
2005	18529
2006	20101
2007	24734
2008	31564
2009	39126
2010	391266
2011	417993
2012	652048
2013	926939
2014	1426559
2015	1758411

Source: RBI

In order to determine that whether non-performing assets of the banks of India operating under both public and private sectors, that have been considered for the research study exerted a positive or negative impact on the initial public offers (IPOs) of the banks, Karl Pearson's Co-efficient of Correlation have been applied.

Moreover, in order to know the magnitude of variation in initial public offers (IPOs) of the banks of India operating under both public and private sectors, that have been considered for the research study due to non-performing assets (NPAs), coefficient of determination have been also used.

However, it is to be noted that issue of initial public offer (IPO) may be affected or influenced by various other financial, economic and regulatory factors, like, financial position of the bank, requirement of long-term finance, inflationary or recessionary condition in the economy, favourable listing requirements of stock exchanges etc. But in this section an endeavour has been made to know whether non-performing assets (NPAs) also play a crucial role or not in exerting a substantial impact on the issue of initial public offer (IPO) of banks considered for the research study since non-performing assets (NPAs) is also a crucial financial component for banking companies.

Dependent Variable – Initial Public Offer (IPO) issued (value wise) by public and private sector banks considered for the research study during the period 2010-2015

Independent Variable- Non-performing Assets of public and private sector banks considered for the research study during the period 2010-2015.

Karl Pearson's Co-efficient of Correlation (r) = $\mathbf{\Sigma dxdy / \Sigma dx^2 \Sigma dy^2}$

Table 5.5

Karl Pearson's Coefficient of Correlation- Non-Performing Assets and IPO

Years	***Non-performing Assets of public and private sector banks (INR Crore) x***	***dx***	***dx²***	***Initial Public Offers of Banks (INR Crore) y***	***dy***	***dy²***	***Dxdy***
2010	36149	-55434	3072928356	3138	-13003	169078009	720,808,302
2011	40487	-51096	2610801216	17248	1107	1225449	-56,563,272
2012	63606	-27977	782,712,529	35611	19470	379080900	-544,712,190
2013	95946	4363	19,035,769	8273	-7868	61,905,424	-34,328,084
2014	139233	47650	2,270,522,500	29700	13559	183,846,481	646,086,350
2015	174079	82496	6,805,590,016	2873	-13276	176,252,176	-1,095,216,896
	Σx = 549500	Σdx=2	Σ dx^2= 15561590386	Σy= 96843	Σdy= -11	Σdy^2=971388439	Σ dxdy = -363925790

r = **$\Sigma dxdy / \sqrt{\Sigma dx^2 \Sigma dy^2}$**

r = **-0.09**

r^2 (co-efficient of determination) = **0.0081**

Probability Error (P.E.) = 0.6745 x $(1-r^2)$ / $\sqrt{n}$

Probability Error = 0.27

Decision: A weak correlation may be observed between non-performing assets (NPAs) of the banks of India operating under both public and private sectors, that have been considered for the research study and initial public offers (IPOs) of those banks. Further, by observing the co-efficient of determination value of 0.008, it may be inferred that non-performing assets (NPAs) have not exerted a debilitating impact on the initial public offers (IPOs) of the banks of India operating under both public and private sectors, that have been taken into consideration for the research study.

Finally, by comparing the probability error value and correlation coefficient value it may be opined that there seems to be complete absence of correlation between non-performing assets (NPAs) and initial public offers (IPOs) of the banks of India operating under both public and private sectors that have been taken into account for the research study.

5.2 Result of the Parabolic Trend Equation

Forecasting of IPO issues till 2030 for Indian Capital Market

Years	No. of IPOs	Amount (INR Crore)
2003-04	19	3,191.10
2004-05	23	14,662.32
2005-06	76	10,797.88
2006-07	76	23,706.16
2007-08	84	41,323.45
2008-09	21	2,033.99
2009-10	39	24,948.31
2010-11	52	33,097.77
2011-12	34	5,892.92
2012-13	33	6,497.03
2013-14	38	1,204.82
2014-15	46	3,019.46
2015-16 (till 30th November 2015)	44	9,631.76

Source: SEBI

Assuming the period 2015-16 (till 30th November, 2015) as complete period

Applying Parabolic Trend Equation

$Yc = a + bX + cX^2$

Table 5.6

Parabolic Trend Equation Computation (IPO Volume)

Years	**IPO issues (Y)**	**X**	**X^2**	**X^3**	**X^4**	**XY**	**X^2Y**
2003-04	19	-6	36	-216	1296	-114	684
2004-05	23	-5	25	-125	625	-115	575
2005-06	76	-4	16	-64	256	-304	1216
2006-07	76	-3	9	-27	81	-228	684
2007-08	84	-2	4	-8	16	-168	336
2008-09	21	-1	1	-1	1	-21	21
2009-10	39	0	0	0	0	0	0
2010-11	52	1	1	1	1	52	52
2011-12	34	2	4	8	16	68	136
2012-13	33	3	9	27	81	99	297
2013-14	38	4	16	64	256	152	608
2014-15	46	5	25	125	625	230	1150
2015-16 (till 30th November 2015)	44	6	36	216	1296	264	1584
	$\sum Y = 585$	$\sum X = 0$	$\sum X^2 = 182$	$\sum X^3 = 0$	$\sum X^4 = 4550$	$\sum XY = -85$	$\sum X^2Y = 7343$

$585 = 13a + 182c$ (i)

$-85 = 182\ b$ (ii)

$7343 = 182a + 4550\ c$ (iii)

Solving equation (ii)

$b = -0.47$

Solving equations (i) and (iii), we get:

$585 = 13a + 182c$ (i)

$7343 = 182a + 4550\ c$ (iii)

Multiplying equation (i) by 14, we get

8190 = 182a + 2548c (iv)

7343 = 182a + 4550 c (iii)

---

847 = -2002 c

c = -0.42

Substituting the value of c in equation (i)

585 = 13a + 182 (-0.42)

585 = 13a –76

a = 51

Thus, the parabolic trend equation will be

$Yc = 51 - 0.47X - 0.42X^2$

The forecasted IPO issues till 2020

Years	Computation	IPO issues (in nos)
2017	51 -0.47 (7) – 0.42 (49)	27
2018	51 – 0.47 (8) – 0.42 (64)	20
2019	51 – 0.47 (9) – 0.42 (81)	13
2020	51 – 0.47 (10) – 0.42 (100)	04

Note: a) Values are rounded off to nearest decimals.

b) Computation of forecasted initial public offer(IPO) issues is done till 2020, as the forecasted value of IPOs is entering into negative territory beyond 2020.

c) For the initial public offers (IPOs) issued till November 2016 have been assumed to be a full financial year.

Forecasting of IPO values using Parabolic Trend Equation

Applying Parabolic Trend Equation

$Yc = a + bX + cX^2$

Table 5.7

Parabolic Trend Equation Computation (IPO Value-wise)

Years	**IPO Values (INR Crore) Y**	**X**	**X^2**	**X^3**	**X^4**	**XY**	**X^2Y**
2003-04	3191.10	-6	36	-216	1296	-19147	114880
2004-05	14662.32	-5	25	-125	625	-73312	366558
2005-06	10797.88	-4	16	-64	256	-43192	172766
2006-07	23706.16	-3	9	-27	81	-71118	213355
2007-08	41323.45	-2	4	-8	16	-82647	165294
2008-09	2033.99	-1	1	-1	1	-2034	2034
2009-10	24948.31	0	0	0	0	0	0
2010-11	33097.77	1	1	1	1	33098	33098
2011-12	5892.92	2	4	8	16	11786	23572
2012-13	6497.03	3	9	27	81	19491	58473
2013-14	1204.82	4	16	64	256	4819	19277
2014-15	3019.46	5	25	125	625	15097	75487
2015-16 (till 30th November 2015)	9631.76	6	36	216	1296	57791	346743
	$\sum Y$ = 180006.97	$\sum X = 0$	$\sum X^2$=182	$\sum X^3 = 0$	$\sum X^4$= 4550	$\sum XY$ =-149368	$\sum X^2Y$ = 1591537

1,80,007 = 13a + 182c (i)

-1,49,368 = 182b (ii)

1591537 = 182a + 4550c (iii)

Solving equation (ii), we get;

b = -821

Solving equations (i) and (iii), we get:

1,80,007 = 13a + 182c (i)

1591537 = 182a + 4550c (iii)

c = -464

Substituting the value of c in equation (i), we get:

180,007 = 13a + 182 (-464)

a = 264,455

Therefore, the parabolic trend equation is:

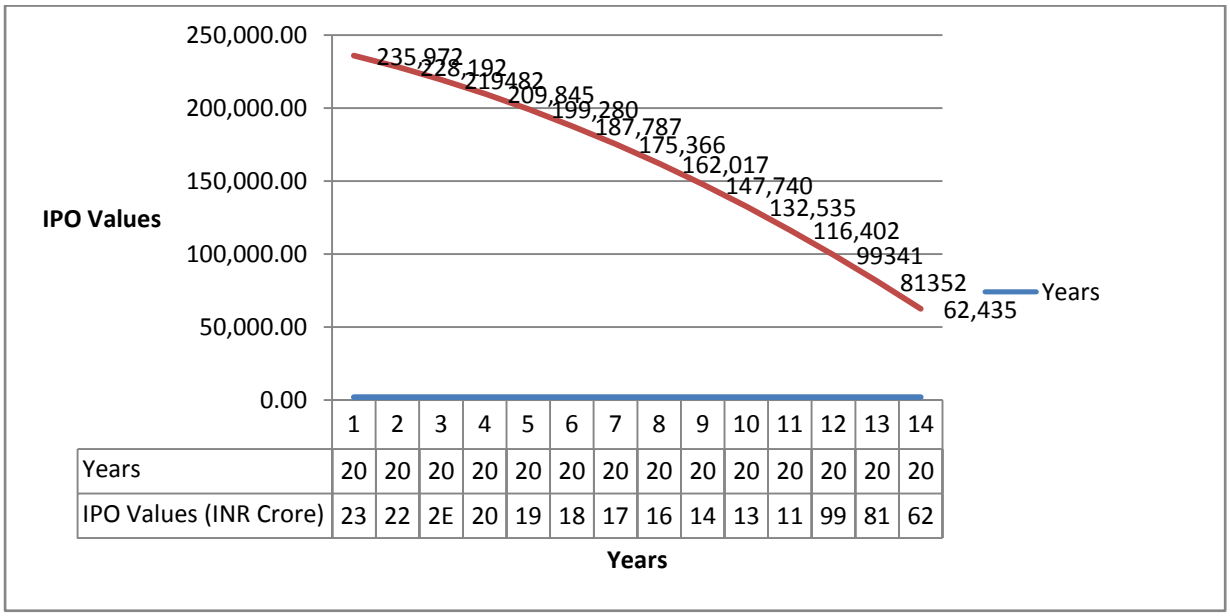
$Yc = 264{,}455 - 821X - 464X^2$

Table 5.8

Initial Public Offer (IPO) issue projection till 2030

Years	IPO Values (INR Crore)
2017	235,972
2018	228,192
2019	219482
2020	209,845
2021	199,280
2022	187,787
2023	175,366
2024	162,017
2025	147,740
2026	132,535
2027	116,402
2028	99341
2029	81352
2030	62,435

Note: a) Figures are rounded off to nearest decimals



Deciphering IPO Performance

From the above mentioned analysis, it can be observed that initial public offers (IPOs) in Indian capital market have witnessed and may face lot of volatility. In 2003-04, the initial pubic offers (IPO) value wise stood at INR 3191.10 crore which rose substantially to INR 41323.45crore in 2007-08, then it dipped sharply to INR 2033.99crore and the scenario improved to a great extent in 2010-2011 with IPO issue registering INR 33097.77crore in 2010-11.

From the forecasted values of initial public offers (IPOs), it may be opined that in the years ahead a lot of volatility may be observed in initial public offers (IPOs) issue. As a mammoth initial public offer (IPO) may be observed in 2020, i.e. INR 209,845crore that may nose dive a little during the period 2021- 2027, that may further go down to INR 62,435crore by 2030. However, in view of the fact that Indian economy is growing at an astounding pace there is a big possibility of an upsurge in the issue of initial public offer (IPO) / follow on public offer (FPO) / offer for sale (OFS) by various public and private sector banks.

5.3 Result of Kruskal-Wallis Test or H-Test

The global financial meltdown which spread across the globe like a contagion creates paramount academic and research interests to know how it impacted the Indian banking industry. Going by the handbook of statistics data pertaining to initial public offering (IPO) by banking sector, it is quite striking to note that there has been no initial public offering (IPO) during 2008-09, whereas, in the preceding five years, i.e. 2003-04, 2004-05, 2005-06, 2006-07 and 2007-08 the volume of initial public offering (IPO) and their values were 11 and INR 5428 crore, 12 and INR 11,311 crore, 12 and INR 12,439 crore, 5 and INR 2190 crore, 6 and INR 30,955 crore respectively, thereby clearly displaying the pessimistic impact of global financial meltdown on the Indian banking sector.

Thus, the sector which was witnessing vibrancy in initial public offering (IPO) just five years prior to 2008-09, suddenly its initial public offering (IPO) took a nose dive and reached zero level, thereby explaining the severe impact of global financial crisis.

In light of the above, it will be highly interesting to observe the impact of global economic crisis on Indian banking industry with reference to other vital industries of the Indian economy, i.e. Cement & Construction and Engineering industries.

Null Hypothesis (H0) : The Global Economic Crisis does not affected initial public offer (IPO)issue of Banking industry with reference to Cement & Construction and Engineering sectors of India.

Alternative Hypothesis (H1): The Global Economic Crisis did affected initial public offer (IPO)issue of Banking industry with reference to Cement & Construction and Engineering sectors of India.

Note: The year 2008-09 have been considered as a differentiating year between pre and post Global Financial Meltdown, as during the mentioned period the crisis was at its pinnacle and no companies covered under Banking and Engineering sectors came up with initial public offer (IPO) and Cement& Construction sector came up with only 03 initial public offers (IPOs). Moreover, on referring various articles, research papers and reports it may be concluded that the global financial meltdown was at its peak during 2008-09.

Table 5.9

Kruskal Wallis Test (H-Test) Impact of Global Economic Crisis

Years	**Banking sector / industry**	**Cement & Construction sector / industry**	**Engineering sector / industry**
2000-01	13	02	02
2001-02	14	02	04
2002-03	13	01	02
2003-04	11	01	01
2004-05	12	02	03
2005-06	12	11	06
2006-07	05	13	02
2007-08	06	27	05
2009-10	06	08	01
2010-11	18	03	05
2011-12	20	02	01
2012-13	07	01	02
2013-14	14	04	05
April 1st 2013-December 2013	01	03	02
April 1st 2014-December 2014	04	03	01

Banking sector Ranks	**Cement & Construction sector Ranks**	**Engineering sector ranks**
38	9	12.5
41	9.5	23.5
38.5	1.5	13.5
34	2.5	4.5
36	10.5	20.5
36.5	34.5	30.5
25	39.5	14.5
29	45	25.5
29.5	33	5.5
43	18	26.5
44	11.5	6.5
32	3.5	15.5
41.5	22.5	27.5
01	18.5	16.5
22	19.5	7.5
R1 = 491	R2= 278.5	R3= 250.5

Here N1= 15, N2=15 and N3=15

Thus, N= N1+N2+N3 = 15+15+15 = 45

$$H = \frac{12}{N(N+1)} [R1^2/N1 + R2^2/N2 + R3^2/N3] - 3(N+1)$$

$$H = \frac{12}{45 \times 46} [(491)^2/15 + (278.5)^2/15 + (250.5)^2/15] - 3 \times 46$$

$$H = \frac{12}{2070} [16072 + 5171 + 4183] - 138$$

H = 9.39

Degrees of freedom = k-1 = 3-1=2

Also level of significance : $\alpha = 0.05$

Therefore ψ^2 (for 2 degrees of freedom and $\alpha = 0.05$) = $\psi_{0.05, 2} = 5.991$

Decision: Reject H0 if H> $\psi^2_{0.95}$

Now 9.39 > 5.991

Decision: Thus, the null hypothesis H0 is rejected and the alternative hypothesis H1 is accepted. It can be inferred that the Global Economic Crisis did affected initial public offer (IPO) issue of Banking industry with reference to Cement & Construction and Engineering industries of India.

So in view of the above analysis, it may be opined that global financial meltdown did impacted the initial public offer trend of various sectors of Indian economy including the banking sector.

5.4 Result of MANN-WHITNEY U-TEST

This non-parametric statistical test will assist in determining that whether there is a significant difference or not in the initial public offer (IPO) issue (volume wise) ofIndian Banking industry pre and post Global Financial Meltdown.

Null Hypothesis: H0: $\mu 1 = \mu 2$, i.e., there is no significant difference in the initial public offer (IPO) issue (volume wise) of Indian Banking industry during pre and post Global Financial Meltdown.

Alternative Hypothesis: H1: $\mu 1 \neq \mu 2$, i.e., there is a significant difference in the initial public offer (IPO) issue (volume wise) of Indian Banking industry during pre and post Global Financial Meltdown.

Level of significance: Here $\alpha = 0.05$

Note: The year 2008-09 have been considered as a differentiating year between pre and post Global Financial Meltdown, as during the mentioned period the crisis was at its pinnacle as during the mentioned year there have been almost no issue of initial public offers (IPOs).

Table 5.9(A)

MANN-WHITNEY U-Test- Global Financial Meltdown (IPO Volume)

Pre-Crisis Periods	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	
IPO Issue	**13**	**14**	**13**	**11**	**12**	**12**	**05**	**06**	
Post Crisis Periods	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**April 2013 – December 2013**	**April 2014-December 2014**		
IPO Issue	**06**	**18**	**20**	**07**	**14**	**01**	**04**		

The observations are arranged in an increasing order and ranks from 1 to 14 are allocated.

Original Data	**Rank**
1	**1**
4	**2**
5	3
6	4
6	**4.5**
7	**6**
11	7
12	8
12	8.5
13	10
13	10.5
14	11
14	**11.5**
18	**13**
20	**14**

The ranks of the observations representing smaller samples have been emboldened.

R1 = 3+4+7+8+8.5+10+10.5+11 = 62

R2 = 1+2+4.5+6+11.5+13+14 =52

Also n1 = 8; n2 =7

$$U = n_1 n_2 + \frac{n_1(n_1+1)}{2} - R_1$$

Therefore, U-Statistic:

2

$$= 8x7 + \frac{8 \times 9}{2} - 62$$

$$= 56 + \frac{72}{2} - 62$$

U = 56+36 - 62 = 30

Mean of U = $\mu u = n1n2/2 = 8 \times 7/2 = 28$

Variance of $U = \sigma^2 u = \frac{(n1 \times n2)(n1 + n2 + 1)}{12}$

$$= \frac{(8 \times 7)(8+7+1)}{12}$$

= 75

$\sigma u = \sqrt{75} = 8.6$

As one of the rule in MANN WHITNEY U-Test suggest that if n1 and n2 are both atleast equal to 8, it implies that the distribution of U is almost normal and one could apply the statistic Z, where,

$$\mathbf{Z} = \frac{U - \mu u}{\sigma u}$$

is normally distributed with mean 0 and variance 1.

Given that the total of n1 and n2 equals to 14 (8+6), i.e. more than 8, the above mentioned statistic Z can be applied.

The value of Z = 0.2325

The table value Zα at α= 0.05 is 1.96

Decision: The null hypothesis is accepted since the computed value of $|Z|$ is less than the tabled value of $|Z\alpha|$. Thus, there is no significant difference in the initial public offer (IPO) issue (volume wise) of Indian Banking industry during pre and post Global Financial Meltdown.

5.5 F-Test (One Factor Model)

This statistical technique assist in comprehending whether issue of initial public offers (IPOs) by the banks of India operating under both public and private sectors, that have been considered for the research study have exerted any impact or not on the important financial variables. The important financial variables considered for the study are-

a) Return on Assets

b) Return on Equity

Public Sector Banks / Banks operating under public sector

1 Allahabad Bank

2 Andhra Bank

3 Canara Bank

4 Punjab National Bank

5 United Bank of India

6 Bank of Baroda

7 Bank of India

8 Bank of Maharashtra

9 Indian Overseas Bank

10 UCO Bank

11 Vijaya Bank

12 Syndicate Bank

13 Oriental Bank of Commerce

14 Central Bank of India

15 Indian Bank

16 Punjab & Sind Bank

Private Sector Banks / Banks operating under private sector

17 ICICI Bank

18 Yes Bank

19 Development Credit Bank

20. The South Indian Bank

Note: The period considered for the research study is 2000-2015. Further, various public and private sector banks considered for the research study have issued initial public offers (IPOs) and follow-on public offers(FPOs) at different point of time during 2000-2015. The analysis have been undertaken on the above mentioned two crucial financial factors for both public and private sector banks of India that have been taken into consideration for the research study, that espoused the initial public offer (IPO) / follow on public offer (FPO) in order to determine that is there any significant difference or not in Return on Assets and Return on Equityof the banks considered for the analysis. It is to be noted that both public and private sector banks taken into consideration for conducting the research study have issued initial public offers (IPOs) / follow on public offers (FPOs) mainly during the period 2002 -2010. However, to ascertain the impact of initial public offer (IPO) / follow on public offer (FPO) issues on two vital financial variables, i.e. Return on Assets (ROA) and Return on Equity (ROE), the analysis has been conducted till 2015.

Table 5.9 (B)

Classified List of Public and Private Sector Banks (ROA)

S.No.	Name of the Bank	Notation
1	Allahabad Bank (Public Sector Bank)	A
2	Andhra Bank (Public Sector Bank)	B
3	Canara Bank (Public Sector Bank)	C
4	Punjab National Bank (Public Sector Bank)	D
5	United Bank of India (Public Sector Bank)	E
6	Bank of Baroda (Public Sector Bank)	F
7	Bank of India (Public Sector Bank)	G
8	Bank of Maharashtra (Public Sector Bank)	H
9	Indian Overseas Bank (Public Sector Bank)	I
10	UCO Bank (Public Sector Bank)	J
11	Vijaya Bank (Public Sector Bank)	K
12	Syndicate Bank (Public Sector Bank)	L
13	Oriental Bank of Commerce (Public Sector Bank)	M
14	Central Bank of India (Public Sector Bank)	N
15	Indian Bank (Public Sector Bank)	O
16	Punjab & Sind Bank (Public Sector Bank)	P
17	ICICI Bank (Private Sector Bank)	Q
18	Yes Bank (Private Sector Bank)	R
19	Development Credit Bank (Private Sector Bank)	S
20	The South Indian Bank (Private Sector Bank)	T

a) Return on Assets

Null Hypothesis (H0): There is no significant difference in the Return on Assets (ROA) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Alternative Hypothesis (H1): There is a significant difference in the Return on Assets (ROA) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Table 5.9 (C)

F-Test (One Factor Model)- Return on Assets of Banks

Years	**A (Sample 1-X1)**	**B (Sample 2-X2)**	**C (Sample 3-X3)**	**D (Sample 4-X4)**	**E (Sample 5-X5)**
2002	0.32	0.97	1.029	0.77	0.52
2003	0.59	1.99	1.24	0.98	1.05
2004	1.03	1.71	1.34	1.08	-0.22
2005	1.23	1.58	1.00	1.11	1.04
2006	1.29	1.19	1.01	0.99	-0.22
2007	1.11	1.13	0.85	0.94	0.63
2008	1.19	1.01	0.86	1.02	0.58
2009	0.80	0.95	0.94	1.25	0.29
2010	1.00	1.15	1.14	1.31	0.41
2011	0.95	0.00	1.19	1.17	0.58
2012	1.02	0.00	0.87	1.06	0.62
2013	0.57	0.88	0.69	0.99	0.34
2014	0.53	0.26	0.49	0.60	-0.96
2015	0.27	0.34	0.49	0.50	0.20
	11.9	13.16	13.14	13.77	4.86
$\bar{X}$ (Mean)	**0.85**	**0.94**	**0.94**	**0.98**	**0.35**

Years	F (Sample 6-X6)	G (Sample 7- X7)	H (Sample 8- X8)	I (Sample 9- X9)	J (Sample 10- X10)	K (Sample 11- X11)
2002	0.77	-	-	-	-	-
2003	1.01	-	-	-	-	-
2004	1.13	1.18	-	-	0.99	1.70
2005	0.71	0.35	0.53	1.28	0.63	1.29
2006	0.72	0.62	0.16	1.31	0.31	0.40
2007	0.71	0.79	0.69	1.22	0.42	0.78
2008	0.79	1.12	0.68	1.18	0.42	0.64
2009	0.97	1.33	0.63	1.09	0.49	0.42
2010	1.09	0.63	0.61	0.53	0.73	0.72
2011	1.18	0.70	0.43	0.59	0.55	0.63
2012	1.11	0.69	0.49	0.47	0.61	0.60
2013	0.81	0.60	0.65	0.23	0.31	0.52
2014	0.68	0.51	0.29	0.21	0.63	0.30
2015	0.47	0.32	0.31	-0.15	0.46	0.30
	12.15	8.84	5.47	7.96	6.55	8.3
Mean ($\bar{X}$)	**0.87**	**0.74**	**0.50**	**0.72**	**0.55**	**0.69**

Years	L (Sample 12-X12)	M (Sample 13-X13)	N (Sample 14- X14)	O (Sample 15- X15)	P (Sample 16-X16)
2002	-	-		-	-
2003	-	-		-	-
2004	-	-		-	-
2005	-	-		-	-
2006	0.87	0.91		-	-
2007	0.80	0.78		-	-
2008	0.79	0.38	0.44	1.43	-
2009	0.70	0.80	0.38	1.48	-
2010	0.58	0.82	0.57	1.53	-
2011	0.66	0.93	0.59	1.40	0.76
2012	0.72	0.64	0.23	1.23	0.61
2013	1.01	0.66	0.37	0.97	0.42
2014	0.73	0.51	- 0.43	0.61	0.31
2015	0.54	0.21	0.19	0.52	0.12
	7.4	**6.64**	**2.34**	**9.17**	**2.22**
Mean ($\bar{X}$)	**0.74**	**0.66**	**0.30**	**1.15**	**0.44**

Years	Q (Sample 17-X17)	R (Sample 18-X18)	S (Sample 19-X19)	T(Sample 20- X20)
2002	0.26	-	0.78	0.95
2003	1.13	-	-2.05	0.95
2004	1.30	-	0.00	0.91
2005	1.19	-0.29	-3.49	0.09
2006	1.01	1.32	-2.27	0.47
2007	0.90	0.84	0.14	0.76
2008	1.03	1.17	0.44	0.88
2009	0.99	1.32	-1.48	0.95
2010	1.10	1.31	-1.27	0.91
2011	1.26	1.23	0.28	0.89
2012	1.36	1.32	0.63	0.99
2013	1.55	1.31	0.90	1.00
2014	1.64	1.48	1.17	0.92
2015	1.72	1.47	1.18	0.51

	16.44	11.01	-5.04	11.18
Mean ($\bar{X}$)	**1.17**	**1.10**	**-0.36**	**0.80**

Computation of Grand Mean ($\bar{\bar{X}}$)

Banks Notation	**Mean Value**
A	0.85
B	0.94
C	0.94
D	0.98
E	0.35
F	0.87
G	0.74
H	0.50
I	0.72
J	0.55
K	0.69
L	0.74
M	0.66
N	0.30
O	1.15
P	0.44
Q	1.17
R	1.10
S	-0.36
T	0.80
Grand Mean ($\bar{\bar{X}}$)	**0.71**

Variance between Samples

Sample 1 $(\bar{X}1 - \bar{\bar{X}})^2$	Sample 2 $(\bar{X}2 - \bar{\bar{X}})^2$	Sample 3 $(\bar{X}3 - \bar{\bar{X}})^2$	Sample 4$(\bar{X}4 - \bar{\bar{X}})^2$	Sample 5$(\bar{X}5 - \bar{\bar{X}})^2$	Sample 6 $(\bar{X}6 - \bar{\bar{X}})^2$
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.02	0.05	0.05	0.073	0.13	0.03
0.28	0.7	0.7	1.022	1.82	0.42

Sample 7 $(\bar{X}7 - \bar{\bar{X}})^2$	Sample 8 $(\bar{X}8 - \bar{\bar{X}})^2$	Sample 9 $(\bar{X}9 - \bar{\bar{X}})^2$	Sample 10 $(\bar{X}10 - \bar{\bar{X}})^2$	Sample 11 $(\bar{X}11 - \bar{\bar{X}})^2$	Sample 12 $(\bar{X}12 - \bar{\bar{X}})^2$
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.0009	0.044	0.0001	0.03	0.0004	0.0009
0.013	0.62	0.0014	0.42	0.0056	0.0126

Sample 13 $(\bar{X}13 - \bar{\bar{X}})^2$	Sample 14 $(\bar{X}14 - \bar{\bar{X}})^2$	Sample 15 $(\bar{X}15 - \bar{\bar{X}})^2$	Sample 16 $(\bar{X}16 - \bar{\bar{X}})^2$	Sample 17 $(\bar{X}17 - \bar{\bar{X}})^2$	Sample 18 $(\bar{X}18 - \bar{\bar{X}})^2$	Sample 19 $(\bar{X}19 - \bar{\bar{X}})^2$	Sample 20 $((\bar{X}20 - \bar{\bar{X}})^2$
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.0025	0.0961	0.194	0.073	0.212	0.152	1.144	0.0081
0.035	1.3454	2.716	1.022	2.968	2.128	16.016	0.1134

Sum of the squares between the samples = 0.02 + 0.05 + 0.05 + 0.073 + 0.13 + 0.03 + 0.013 + 0.62 + 0.0014 + 0.42 + 0.0056 + 0.0126 + 0.035 + 1.3454 + 2.716 + 1.022 + 2.968 + 2.128 + 16.016 + 0.1134 = **27.77**

Mean sum of squares between the samples = 27.77 / 19 = **1.46**

Variance within the Samples

Sample 1		**Sample 2**		**Sample 3**		**Sample 4**		**Sample 5**	
X1	**(X1 - $\bar{X}$1)²**	**X2**	**(X2 - $\bar{X}$2)²**	**X3**	**(X3 - $\bar{X}$3)²**	**X4**	**(X4 - $\bar{X}$4)²**	**X5**	**(X5 - $\bar{X}$5)²**
0.32	0.28	0.97	0.0009	1.029	0.008	0.77	0.044	0.52	0.029
0.59	0.07	1.99	1.10	1.24	0.09	0.98	0	1.05	0.49
1.03	0.03	1.71	0.59	1.34	0.16	1.08	0.01	-0.22	-0.325
1.23	0.14	1.58	0.41	1.00	0.0036	1.11	0.017	1.04	0.48
1.29	0.19	1.19	0.06	1.01	0.0049	0.99	0.0001	-0.22	0.325
1.11	0.07	1.13	0.04	0.85	0.0081	0.94	0.0016	0.63	0.0784
1.19	0.12	1.01	0.005	0.86	0.0064	1.02	0.0016	0.58	0.053
0.80	0.0025	0.95	0.0001	0.94	0	1.25	0.073	0.29	0.0036
1.00	0.0225	1.15	0.044	1.14	0.04	1.31	0.11	0.41	0.0036
0.95	0.01	0.00	0.88	1.19	0.062	1.17	0.0361	0.58	0.053
1.02	0.03	0.00	0.88	0.87	0.005	1.06	0.0064	0.62	0.073
0.57	0.08	0.88	0.004	0.69	0.063	0.99	0.0001	0.34	0.0001
0.53	0.10	0.26	0.46	0.49	0.0203	0.60	0.144	-0.96	1.72
0.27	0.34	0.34	0.36	0.49	0.203	0.50	0.2304	0.20	0.0225
$\sum$(X1 - $\bar{X}$1)² = 1.485		**$\sum$(X2 - $\bar{X}$2)² = 4.834**		**$\sum$(X3 - $\bar{X}$3)² = 0.6743**		**$\sum$(X4 - $\bar{X}$4)² =0.6743**		**$\sum$(X5 - $\bar{X}$5)²=3.0062**	

Sample 6		**Sample 7**			**Sample 8**		**Sample 9**		**Sample 10**
X6	**(X6 - $\bar{X}$6)²**	**X7**	**(X7 - $\bar{X}$7)²**		**(X8 - $\bar{X}$8)²**		**(X9 - $\bar{X}$9)²**		**(X10 - $\bar{X}$10)²**
0.77	0.01	-	-	-	-	-	-	-	-
1.01	0.0196	-	-	-	-	-	-	-	-
1.13	0.0676	1.18	0.194	-	-	-	-	0.99	0.1936
0.71	0.0256	0.35	0.152	0.53	0.0009	1.28	0.3136	0.63	0.0064
0.72	0.0225	0.62	0.0144	0.16	0.1156	1.31	0.3481	0.31	0.0576
0.71	0.0256	0.79	0.0025	0.69	0.0361	1.22	0.25	0.42	0.0169
0.79	0.0064	1.12	0.144	0.68	0.0324	1.18	0.2116	0.42	0.0169
0.97	0.01	1.33	0.35	0.63	0.0169	1.09	0.1369	0.49	0.0036
1.09	0.0484	0.63	0.0121	0.61	0.0121	0.53	0.0361	0.73	0.0324
1.18	0.0961	0.70	0.0016	0.43	0.0049	0.59	0.0169	0.55	0
1.11	0.0576	0.69	0.0025	0.49	0.0001	0.47	0.0625	0.61	0.0036

0.81	0.0036	0.60	0.0196	0.65	0.0225	0.23	0.2401	0.31	0.0576
0.68	0.0361	0.51	0.0529	0.29	0.0441	0.21	0.2601	0.63	0.0064
0.47	0.16	0.32	0.1764	0.31	0.0361	-0.15	0.7569	0.46	0.0081
$\sum(X6 - \bar{X}6)^2$ = 0.59		**$\sum(X7 - \bar{X}7)^2$ =1.122**		**$\sum(X8 - \bar{X}8)^2$ =0.3217**		**$\sum(X9 - \bar{X}9)^2$ =2.6328**		**$\sum(X10 - \bar{X}10)^2$ =0.4031**	

Sample 11		**Sample 12**		**Sample 13**		**Sample 14**	
X11	**$(X11 - \bar{X}11)^2$**	**X12**	**$(X12 - \bar{X}12)^2$**	**X13**	**$(X13 - \bar{X}13)^2$**	**X14**	**$(X14 - \bar{X}14)^2$**
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1.70	1.02	-	-	-	-	-	-
1.29	0.36	-	-	-	-	-	-
0.40	0.084	0.87	0.0169	0.91	0.0625	-	-
0.78	0.0081	0.80	0.0036	0.78	0.0144	-	-
0.64	0.0025	0.79	0.0025	0.38	0.0784	0.44	0.0016
0.42	0.0729	0.70	0.0016	0.80	0.0196	0.38	0.0004
0.72	0.0009	0.58	0.0256	0.82	0.0256	0.57	0.0289
0.63	0.0036	0.66	0.0064	0.93	0.0729	0.59	0.0361
0.60	0.0081	0.72	0.0004	0.64	0.0004	0.23	0.0289
0.52	0.0289	1.01	0.0729	0.66	0.0225	0.37	0.0009
0.30	0.1521	0.73	0.0001	0.51	0.0225	- 0.43	0.69
0.30	0.1521	0.54	0.04	0.21	0.2025	0.19	0.0441
$\sum(X11 - \bar{X}11)^2$ =1.8932		**$\sum(X12 - \bar{X}12)^2$ = 0.17**		**$\sum(X13 - \bar{X}13)^2$ =0.5213**		**$\sum(X14 - \bar{X}14)^2$ =0.8309**	

Sample 15		**Sample 16**	
X15	**$(X15 - \bar{X}15)^2$**	**X16**	**$(X16 - \bar{X}16)^2$**
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
1.43	0.0784	-	-
1.48	0.1089	-	-
1.53	0.1444	-	-
1.40	0.0625	0.76	0.1024
1.23	0.0064	0.61	0.0289
0.97	0.0324	0.42	0.0004
0.61	0.2916	0.31	0.0169
0.52	0.3969	0.12	0.1024
$\sum(X15 - \bar{X}15)^2$ =1.1215		**$\sum(X16 - \bar{X}16)^2$ = 0.251**	

Sample 17		Sample 18		Sample 19		Sample 20	
X17	**$(X17 - \bar{X}17)^2$**	**X18**	**$(X18 - \bar{X}18)^2$**	**X19**	**$(X19 - \bar{X}19)^2$**	**X20**	**$(X20 - \bar{X}20)^2$**
0.26	0.828	-	-	0.78	1.2996	0.95	0.0225
1.13	0.0016	-	-	-2.05	2.8561	0.95	0.0225
1.30	0.0169	-	-	0.00	0.1296	0.91	0.0121
1.19	0.0004	-0.29	1.9321	-3.49	9.7969	0.09	0.5041
1.01	0.0256	1.32	0.0484	-2.27	3.6481	0.47	0.1089
0.90	0.0729	0.84	0.0676	0.14	0.25	0.76	0.0016
1.03	0.0196	1.17	0.0049	0.44	0.64	0.88	0.0064
0.99	0.0324	1.32	0.0484	-1.48	1.2544	0.95	0.0225
1.10	0.0049	1.31	0.0441	-1.27	0.8281	0.91	0.0121
1.26	0.0081	1.23	0.0169	0.28	0.4096	0.89	0.0081
1.36	0.0361	1.32	5.856	0.63	0.9801	0.99	0.0361
1.55	0.1444	1.31	0.0441	0.90	1.5876	1.00	0.04
1.64	0.2209	1.48	0.1444	1.17	2.3409	0.92	0.0144
		1.72				1.47	
$\sum(X17 - \bar{X}17)^2$ =1.4118		**$\sum(X18 - \bar{X}18)^2$ =8.2069**		**$\sum(X19 - \bar{X}19)^2$ =26.021**		**$\sum(X20 - \bar{X}20)^2$ =0.8113**	

Total sum of squares within the samples = 56.98

ANNOVA TABLE

Source of variation	**Sum of squares**	**Degrees of freedom**	**Mean square**
Between samples	27.77	$d.o.f_1 = 19$	1.46
Within samples	56.98	$d.o.f_2 = 216$	0.26
	6704.55	235	

Test Statistic: F = Variance between samples / Variance within samples = 1.46 / 0.26 = 5.61

Decision: The table value of F for 5% level of significance, i.e. $\alpha = 0.05$ for $v_1 = 19$ and $v_2 = 216$ at 5% level of significance = 1.00. The calculated value of F is more than the table value and hence the null hypothesis is rejected and there is no significant difference in the Return on Assets (ROA) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Thus, it may be inferred that the performance of initial public offer (IPO) of both public and private sector banks considered for the research study have been quite positive in terms of its impact on their Return on Assets.

b) Return on Equity

In this section, an endeavour has been made to study the impact of initial public offer (IPO) issues on one of the crucial financial variable from equity shareholders perspective, i.e. Return on Equity (ROE).

The banks considered for the study are-

1 Allahabad Bank

2 Andhra Bank

3 Canara Bank

4 Punjab National Bank

5 United Bank of India

6 Bank of Baroda

7 Bank of India

8 Bank of Maharashtra

9 Indian Overseas Bank

10 UCO Bank

11 Vijaya Bank

12 Syndicate Bank

13 Oriental Bank of Commerce

14 Central Bank of India

15 Indian Bank

16 Punjab & Sind Bank

17 ICICI Bank

18 Yes Bank

19 Development Credit Bank

20. The South Indian Bank

Table 5.9 (D)

Classified List of Public and Private Sector Banks- ROE

S.No.	Name of the Bank	Notation
1	Allahabad Bank (public sector bank)	A
2	Andhra Bank (public sector bank)	B
3	Canara Bank (public sector bank)	C
4	Punjab National Bank (public sector bank)	D
5	United Bank of India (public sector bank)	E
6	Bank of Baroda (public sector bank)	F
7	Bank of India (public sector bank)	G
8	Bank of Maharashtra (public sector bank)	H
9	Indian Overseas Bank (public sector bank)	I
10	UCO Bank (public sector bank)	J
11	Vijaya Bank (public sector bank)	K
12	Syndicate Bank (public sector bank)	L
13	Oriental Bank of Commerce (public sector bank)	M
14	Central Bank of India (public sector bank)	N
15	Indian Bank (public sector bank)	O
16	Punjab & Sind Bank (public sector bank)	P
17	ICICI Bank (private sector bank)	Q
18	Yes Bank (private sector bank)	R
19	Development Credit Bank (private sector bank)	S
20	The South Indian Bank (private sector bank)	T

Null Hypothesis (H0): There is no significant difference in the Return on Equity (ROE) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Alternative Hypothesis (H1): There is a significant difference in the Return on Equity (ROE) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Table 5.9(E)

F-Test (One Factor Model)- Return on Equity

Years	A(X1-Sample 1)	B (X2-Sample 2)	C (X3-Sample 3)	D (X4-Sample 4)	E (X5-Sample 5)
2002	8.45	24.66	24.62	20.96	6.06
2003	15.43	49.33	27.66	24.97	17.21
2004	29.85	31.90	26.07	23.63	-4.40
2005	23.27	28.31	18.51	17.96	19.68
2006	19.40	16.77	19.13	15.86	0.00
2007	16.75	17.04	17.51	15.18	11.06
2008	18.57	17.04	18.86	19.00	11.98
2009	15.43	17.90	20.64	23.52	7.83
2010	20.50	23.71	24.09	24.06	11.11
2011	18.61	0.00	22.43	22.12	14.70
2012	19.35	0.00	15.91	18.52	15.28
2013	11.29	15.27	12.57	15.19	8.78
2014	10.70	4.98	10.10	9.69	0.00
2015	5.26	6.34	10.21	8.12	4.89
Mean ($\bar{X}$)	**17**	**18**	**19**	**18**	**9**

Years	F (X6 – Sample 6)	G (X7-Sample 7)	H (X8-Sample 8)	I (X9-Sample 9)	J (X10-Sample 10)
2002	15.20	-	-	-	-
2003	18.81	-	-	-	-
2004	18.84	26.29	-	-	29.12
2005	12.02	7.90	11.70	26.76	19.54
2006	10.54	14.53	3.28	25.64	9.89
2007	11.86	19.54	15.84	26.04	14.29
2008	12.99	22.76	18.60	25.35	16.58
2009	17.35	25.51	18.16	22.31	19.95
2010	20.24	13.60	18.22	11.13	28.02
2011	20.15	15.58	9.85	13.13	18.06
2012	18.22	13.57	10.51	-1.02	17.93
2013	14.01	11.49	16.30	-0.55	8.60
2014	12.61	9.12	6.92	4.19	14.36
2015	8.53	5.43	6.53	-3.26	9.52
Mean ($\bar{X}$)	**15**	**15.44**	**12.36**	**13.61**	**17.16**

Years	K (X11 – Sample 11)	L (X12-Sample 12)	M (X13-Sample 13)	N (X14-Sample 14)	O (X15-Sample 15)	P (X16 – Sample 16)
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	32.18	-	-	-	-	-
2005	24.77	-	-	-	-	-
2006	7.83	20.34	10.39	-	-	-
2007	17.89	22.48	10.37	-	-	-
2008	17.15	21.94	6.11	17.72	21.95	-
2009	11.32	19.86	14.03	16.38	22.72	-
2010	19.04	15.57	15.49	24.25	23.39	21.60
2011	15.76	15.74	14.71	23.62	21.62	14.60
2012	15.39	16.34	10.29	5.96	18.91	11.14
2013	14.29	20.95	10.97	8.58	15.14	7.70
2014	7.37	15.70	8.91	10.24	10.04	6.24
2015	7.41	12.54	3.77	3.87	8.0	2.16
Mean ($\bar{X}$)	**15.87**	**18.15**	**10.50**	**13.83**	**17.72**	**10.57**

Years	Q (X17-Sample 17)	R (X18-Sample 18)	S (X19-Sample 19)	T (X20-Sample 20)
2002	6.76	-	11.32	25.31
2003	17.38	-	32.69	24.29
2004	20.43	-	0.00	21.35
2005	15.97	0.00	0.00	1.91
2006	11.43	9.66	0.00	7.94
2007	12.79	11.98	2.23	14.38
2008	8.94	15.16	5.36	13.27
2009	7.58	18.70	0.00	15.14
2010	7.79	15.46	0.00	15.93
2011	9.35	19.16	3.79	17.25
2012	10.70	20.89	6.82	19.82
2013	12.48	22.39	10.75	17.51
2014	13.39	22.71	13.74	15.66
2015	13.89	17.16	12.43	8.89
Mean ($\bar{X}$)	**12**	**16**	**7**	**16**

Computation of Grand Mean

Banks Notation	Mean Value (X̄)
A	17
B	18
C	19
D	18
E	9
F	15
G	15.44
H	12.36
I	13.61
J	17.16
K	15.87
L	18.15
M	10.5
N	13.83
O	17.72
P	10.57
Q	12
R	16
S	7
T	16
Grand Mean (X̄̄)	**14.61**

Variance between Samples

Formula: ∑ (Sample Mean - Grand Mean)²

Sample 1 (X1)	Sample 2 (X2)	Sample 3 (X3)	Sample 4 (X4)	Sample 5 (X5	Sample 6 (X6)	Sample 7 (X7)	Sample 8 (X8)	Sample 9 (X9)	Sample 10 (X10)
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50

5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
5.71	11.49	19.27	11.49	31.47	0.1521	0.69	5.06	1	6.50
79.94	**160.86**	**269.78**	**160.86**	**440.58**	**2.1294**	**9.66**	**70.84**	**14**	**91**

Sample 11(X11)	Sample 12 (X12)	Sample 13 (X13)	Sample 14 (X14)	Sample 15 (X15	Sample 16 (X16)	Sample 17 (X17)	Sample 18 (X18)	Sample 19 (X19)	Sample 20 (X20)
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
1.59	12.53	16.89	0.61	9.67	16.32	6.81	1.93	57.91	1.93
22.26	**175.42**	**236.46**	**8.54**	**135.38**	**228.48**	**95.34**	**27.02**	**810.74**	**27.02**

Sum of the squares between the samples = **3066.35**

Mean sum of squares between the samples = 3066.35 /19 = 161.39 (because there are 10 samples and the degrees of freedom are 20 – 1 = 19).

Variance within Samples

Sample 1 (X1)		**Sample 2 (X2)**		**Sample 3 (X3)**		**Sample 4 (X4)**		**Sample 5 (X5)**	
X1	**(X1 - $\bar{X}$1)²**	**X2**	**(X2 –$\bar{X}$2)²**	**X3**	**(X3 - $\bar{X}$3)²**	**X4**	**(X4 - $\bar{X}$4)²**	**X5**	**(X5 - $\bar{X}$5)²**
8.45	73.10	24.66	44.36	24.66	32.03	20.96	8.76	6.06	8.64
15.43	2.46	49.33	981.57	49.33	919.91	24.97	48.58	17.21	67.40
29.85	165.12	31.90	193.21	31.90	166.41	23.63	31.7	-4.40	179.56
23.27	39.31	28.31	106.3	28.31	86.68	17.96	0.0016	19.68	114.06
19.40	5.76	16.77	1.51	16.77	4.97	15.86	4.58	0.00	81
16.75	0.0625	17.04	0.92	17.04	3.84	15.18	7.95	11.06	4.24
18.57	2.46	17.04	0.92	17.04	3.84	19.00	1	11.98	8.88
15.43	2.46	17.90	0.01	17.90	1.21	23.52	30.47	7.83	1.37
20.50	12.25	23.71	32.60	23.71	22.18	24.06	36.72	11.11	4.45
18.61	2.59	0.00	324	0.00	361	22.12	16.97	14.70	32.49
19.35	5.52	0.00	324	0.00	361	18.52	0.27	15.28	39.44
11.29	32.60	15.27	7.5	15.27	13.91	15.19	7.9	8.78	0.0484
10.70	39.69	4.98	169.52	4.98	196.56	9.69	6.91	0.00	81
5.26	137.83	6.34	135.96	6.34	160.28	8.12	97.61	4.89	16.89
	$\sum$(X1 - $\bar{X}$1)² =521.21		**$\sum$(X2 – $\bar{X}$2)² = 2322.38**		**$\sum$(X3 - $\bar{X}$3)² =2333.82**		**$\sum$(X4 - $\bar{X}$4)²=299.42**		**$\sum$(X5 - $\bar{X}$5)²=639.47**

Sample 6 (X6)		**Sample 7 (X7)**		**Sample 8 (X8)**		**Sample 9 (X9)**		**Sample 10 (X10)**	
X6	**$(X6 - \bar{X}6)^2$**	**X7**	**$(X7 - \bar{X}7)^2$**	**X8**	**$(X8 - \bar{X}8)^2$**	**X9**	**$(X9 - \bar{X}9)^2$**	**X10**	**$(X10 - \bar{X}10)^2$**
6.76	27.46	-	-	-	-	-	-	-	-
17.38	28.94	-	-	-	-	-	-	-	-
20.43	71.06	26.29	117.72	-	-	-	-	29.12	143.04
15.97	15.76	7.90	56.85	11.70	0.44	26.76	172.92	19.54	5.66
11.43	0.32	14.53	0.83	3.28	82.45	25.64	144.72	9.89	52.85
12.79	0.62	19.54	16.81	15.84	12.11	26.04	154.50	14.29	8.24
8.94	9.36	22.76	53.58	18.60	38.94	25.35	137.83	16.58	0.34
7.58	19.54	25.51	101.40	18.16	33.64	22.31	75.7	19.95	7.78
7.79	17.72	13.60	3.39	18.22	34.34	11.13	6.15	28.02	117.94
9.35	7.02	15.58	0.02	9.85	6.30	13.13	0.23	18.06	0.81
10.70	1.69	13.57	3.49	10.51	3.42	-1.02	214.04	17.93	0.59
12.48	0.23	11.49	15.60	16.30	15.52	-0.55	200.51	8.60	73.3
13.39	1.93	9.12	39.94	6.92	29.59	4.19	88.74	14.36	7.84
13.89	3.57	5.43	100.20	6.53	33.99	-3.26	284.60	9.52	58.37
	$\sum(X6 - \bar{X}6)^2 = 205.22$		**$\sum(X7 - \bar{X}7)^2 = 509.83$**		**$\sum(X8 - \bar{X}8)^2 = 290.74$**		**$\sum(X9 - \bar{X}9)^2 = 1479.94$**		**$\sum(X10 - \bar{X}10)^2 = 476.76$**

Sample 11(X11)		**Sample 12 (X12)**		**Sample 13 (X8)**		**Sample 14 (X14)**		**Sample 15 (X15)**	
X11	**(X11 - $\bar{X}$11)²**	**X12**	**(X12 - $\bar{X}$12)²**	**X13**	**(X13 - $\bar{X}$13)²**	**X14**	**(X14 - $\bar{X}$14)²**	**X15**	**(X15 - $\bar{X}$15)²**
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
32.18	266.02	-	-	-	-	-	-	-	-
24.77	79.21	-	-	-	-	-	-	-	-
7.83	64.64	20.34	4.8	10.39	0.0121	-	-	-	-
17.89	4.08	22.48	18.75	10.37	0.0169	-	-	-	-
17.15	1.64	21.94	14.4	6.11	19.27	17.72	15.13	21.95	17.9
11.32	20.70	19.86	2.92	14.03	12.46	16.38	6.50	22.72	25
19.04	10.05	15.57	6.65	15.49	24.90	24.25	108.58	23.39	32.15
15.76	0.0121	15.74	5.81	14.71	17.72	23.62	95.84	21.62	15.21
15.39	0.23	16.34	3.28	10.29	0.0441	5.96	61.94	18.91	1.42
14.29	2.5	20.95	7.84	10.97	0.2209	8.58	27.56	15.14	6.65
7.37	72.3	15.70	6.0	8.91	2.53	10.24	12.89	10.04	58.98
7.41	71.6	12.54	31.47	3.77	45.3	3.87	99.20	8.0	94.48
	$\sum$(X11 - $\bar{X}$11)² =592.98		**$\sum$(X12 - $\bar{X}$12)² =101.92**		**$\sum$(X13 – $\bar{X}$13)² = 122.47**		**$\sum$(X14 - $\bar{X}$14)² =427.64**		**$\sum$(X15 - $\bar{X}$15)² = 251.79**

Sample 16		Sample 17 (X17)		Sample 18 (X18)		Sample 19 (X19)		Sample 20 (X20)	
X16	**(X16 – $\bar{X}$16)²**	**X17**	**(X17 – $\bar{X}$17)²**	**X8**	**(X18 - $\bar{X}$18)²**	**X19**	**(X19 - $\bar{X}$19)²**	**X20**	**(X20 - $\bar{X}$20)²**
-	-	6.76	27.46	-	-	11.32	18.66	25.31	86.68
-	-	17.38	28.94	-	-	32.69	659.98	24.29	68.72
-	-	20.43	71.06	-	-	0.00	49	21.35	28.62
-	-	15.97	15.76	0.00	256	0.00	49	1.91	198.53
-	-	11.43	0.32	9.66	40.2	0.00	49	7.94	64.96
-	-	12.79	0.62	11.98	16.16	2.23	22.75	14.38	2.62
-	-	8.94	9.36	15.16	0.71	5.36	2.69	13.27	7.45
-	-	7.58	19.54	18.70	7.29	0.00	49	15.14	0.74
21.60	121.7	7.79	17.72	15.46	0.29	0.00	49	15.93	0.0049
14.60	16.24	9.35	7.02	19.16	9.99	3.79		17.25	1.56
11.14	0.32	10.70	1.69	20.89	23.91	6.82	0.0324	19.82	14.59
7.70	8.24	12.48	0.23	22.39	40.83	10.75	14.06	17.51	2.28
6.24	18.75	13.39	1.93	22.71	45.02	13.74	45.43	15.66	0.12
2.16	70.73	13.89	3.57	17.16	1.35	12.43	29.48	8.89	50.55
	∑(X16 - $\bar{X}$16)² =235.98		**∑(X17 - $\bar{X}$17)² =205.22**		**∑(X18 –$\bar{X}$18)² = 441.75**		**∑(X19 - $\bar{X}$19)² =1038.0824**		**∑(X20 - $\bar{X}$20)² = 527.42**

Sum of the squares within the samples = **12,496.62**

Source of variation	**Sum of squares**	**Degrees of freedom**	**Mean square**
Between samples	3066.35	d.o.f$_1$ = 19	161.39
Within samples	12,496.62	d.o.f$_2$ = 216	57.85
	15562.97	235	

F = Variance between samples / Variance within samples = 161.39 / 57.85 = **2.79**

Decision: The table value of F for 5% level of significance, i.e. α =0.05 for v_1 = 19 and v_2 = 235 at 5% level of significance = 1.00. The calculated value of F is more than the table value and hence the null hypothesis is not accepted and so there is a significant difference in the Return on Equity (ROE) of both public and private sector banks taken into consideration for the research study due to issue of initial public offer (IPO) during the period 2000 – 2015.

Thus, it may be opined that the performance of initial public offer of both public and private sector banks considered for the research study have been quite satisfactory in terms of its impact on their Return on Equity.

5.6 Initial Return or Raw Return for the Stock

This will help in knowing the initial return on stocks of the following public and private sector banks that have formed the part of the research study-

1) Allahabad Bank

2) Canara Bank

3) Punjab National Bank

4) United Bank of India

5) ICICI Bank

6) HDFC Bank

7) Yes Bank

8) Development Credit Bank

9) The South Indian Bank

10) Bank of Baroda

The formula for calculating Initial or Raw Return on Stock is

$$\mathbf{R\_Ret = [P_t – P_0 / P_0] \times 100}$$

Where,

R_Ret. = Initial Return or Raw Return for stock

P_t = Closing price at time t

P_0 = Closing price on listing day

Initial or Raw Return on Stock- Allahabad Bank

Listed on 2002	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2007)	203.4%	Underpriced
6 years from listing (2008)	212%	Underpriced
7 years from listing (2009)	212%	Underpriced
8 years from listing (2010)	203.4%	Underpriced
9 years from listing (2011)	229%	Underpriced
10 years from listing (2010)	203.4%	Underpriced

Initial or Raw Return on Stock- Punjab National Bank

Listed on 2002	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2007)	149.53%	Underpriced
6 years from listing (2008)	182.4%	Underpriced
7 years from listing (2009)	139.05%	Underpriced
8 years from listing (2010)	415.45%	Underpriced
9 years from listing (2011)	492.93%	Underpriced
10 years from listing (2012)	319.6%	Underpriced

Initial or Raw Return on stock of Canara Bank

Listed on 2002	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2007)	510.88%	Underpriced
6 years from listing (2008)	233.71%	Underpriced
7 years from listing (2009)	719.82%	Underpriced
8 years from listing (2010)	1249.64%	Underpriced
9 years from listing (2011)	644.40%	Underpriced
10 years from listing (2012)	877.49%	Underpriced

Initial or Raw Return on stock of United Bank of India

Listed on 2010	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2015)	-53.05%	Overpriced
6 years from listing (2016)	-71.88%	Overpriced
7 years from listing (2017)	-62.65%	Overpriced

Initial or Raw Return on stock of Bank of Baroda

Listed on 1997	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2002)	-27.06%	Overpriced
6 years from listing (2003)	-30.84%	Overpriced
7 years from listing (2004)	-35.6%	Overpriced
8 years from listing (2005)	-54.11%	Overpriced
9 years from listing (2006)	-22.98%	Overpriced

Initial or Raw Return on Stock- HDFC Bank

Listed on 1996	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
11 years from listing (2007)	20,556.37%	Underpriced
12 years from listing (2008)	33288%	Underpriced
13 years from listing (2009)	19470.46%	Underpriced
14 years from listing (2010)	32818.92%	Underpriced
15 years from listing (2011)	46048.65%	Underpriced
16 years from listing (2012)	8140.35%	Underpriced

Initial or Raw Return on Stock- Yes Bank

Listed on 2005	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
2 years from listing (2007)	203.45%	Underpriced
3 years from listing (2008)	90.79%	Underpriced
4 years from listing (2009)	109.29%	Underpriced
5 years from listing (2010)	372.70%	Underpriced
6 years from listing (2011)	417.76%	Underpriced
7 years from listing (2012)	481.25%	Underpriced

Initial or Raw Return on Stock- ICICI Bank

Listed on 2004	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2009)	- 72.3%	Overpriced
6 years from listing (2010)	-39.41%	Overpriced
7 years from listing (2011)	-27.77%	Overpriced
8 years from listing (2012)	-44.08%	Overpriced
9 years from listing (2013)	-27.10%	Overpriced
10 years from listing (2014)	-17.99%	Overpriced

Initial or Raw Return on Stock- Development Credit Bank

Listed on 2006	**Initial Return or Raw Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2011)	66.35%	Underpriced
6 years from listing (2012)	71.15%	Underpriced
7 years from listing (2013)	99.42%	Underpriced
8 years from listing (2014)	237.70%	Underpriced
9 years from listing (2015)	236.92%	Underpriced

Initial or Raw Return on Stock- The South Indian Bank

Listed on 2004	Initial Return or Raw Return on Stock	Underpriced / Overpriced
5 years from listing (2009)	97.47%	Underpriced
6 years from listing (2010)	343.94%	Underpriced
7 years from listing (2011)	246.97%	Underpriced
8 years from listing (2012)	324.24%	Underpriced
9 years from listing (2013)	659.6%	Underpriced

5.7 Market Adjusted Excess Return

In order to ascertain the return on IPO of banks post listing, another method that have been used is Market Adjusted Excess Return (MAER). The rationale for using MAER is that generally there is a small time lag between the application closing dates of initial public offers (IPOs) and the first day, so the impact is negligible. But in case of India this gap is quite long and during this period, a substantial change may occur in market conditions and the observed premium (discount) gauged by Initial or Raw Return on stock could be the outcome ofa change in market conditions instead of initial mispricing.

The formula for Market Adjusted Excess Return is

MAER = [Pt – P_0 / P_0 – Mt – M_0 / M_0] x 100

MAER = Market Adjust Excess Return

Mt = Closing value of Market Index at time period t

M0 = Closing value of Market Index on listing date

MAER for Allahabad Bank

Listed on 2002	Market Adjusted Excess Return on Stock	Underpriced / Overpriced
5 years from listing (2007)	-285%	Overpriced
6 years from listing (2008)	30%	Underpriced
7 years from listing (2009)	-203%	Overpriced
8 years from listing (2010)	-296%	Overpriced
9 years from listing (2011)	- 167%	Overpriced
10 years from listing (2012)	- 291%	Overpriced

MAER for Punjab National Bank

Listed on 2002	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2007)	-171%	Overpriced
6 years from listing (2008)	-244%	Overpriced
7 years from listing (2009)	- 106%	Overpriced
8 years from listing (2010)	-15%	Overpriced
9 years from listing (2011)	13%	Underpriced
10 years from listing (2012)	- 101%	Overpriced

MAER for Canara Bank

Listed on 2002	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2007)	**1**4%	Underpriced
6 years from listing (2008)	43%	Underpriced
7 years from listing (2009)	300%	Underpriced
8 years from listing (2010)	750%	Underpriced
9 years from listing (2011)	270%	Underpriced
10 years from listing (2012)	402%	Underpriced

MAER for United Bank of India (UBI)

Listed on 2010	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2015)	- 116%	Overpriced
6 years from listing (2016)	- 113%	Overpriced
7 years from listing (2017)	- 132%	Overpriced

MAER for Bank of Baroda (BOB)

Listed on 1997	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2002)	72%	Underpriced
6 years from listing (2003)	48%	Underpriced
7 years from listing (2004)	75%	Underpriced
8 years from listing (2005)	69%	Underpriced
9 years from listing (2006)	184%	Underpriced

MAER for HDFC Bank

Listed on 1995	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
11 years from listing (2006)	20210%	Underpriced
12 years from listing (2007)	32739%	Underpriced
13 years from listing (2008)	19253%	Underpriced
14 years from listing (2009)	32358%	Underpriced
15 years from listing (2010)	45492%	Underpriced
16 years from listing (2011)	7744%	Underpriced

MAER for Yes Bank

Listed on 2005	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2010)	96%	Underpriced
6 years from listing (2011)	7%	Underpriced
7 years from listing (2012)	24%	Underpriced
8 years from listing (2013)	227%	Underpriced
9 years from listing (2014)	266%	Underpriced
10 years from listing (2015)	345%	Underpriced

MAER for ICICI Bank

Listed on 2004	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2009)	- 162%	Overpriced
6 years from listing (2010)	-240%	Overpriced
7 years from listing (2011)	-263%	Overpriced
8 years from listing (2012)	-243%	Overpriced
9 years from listing (2013)	-254%	Overpriced
10 years from listing (2014)	- 310%	Overpriced

MAER for Development Credit Bank

Listed on 2006	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2011)	29%	Underpriced
6 years from listing (2012)	27%	Underpriced
7 years from listing (2013)	39%	Underpriced
9 years from listing (2014)	131%	Underpriced

MAER for The South Indian Bank

Listed on 2004	**Market Adjusted Excess Return on Stock**	**Underpriced / Overpriced**
5 years from listing (2009)	8%	Underpriced
6 years from listing (2010)	144%	Underpriced
7 years from listing (2011)	12%	Underpriced
8 years from listing (2012)	125%	Underpriced
9 years from listing (2013)	430%	Underpriced

Non-Banking Finance Companies

In order to ascertain the post listing IPO Returns of selected Non-Banking Financial Companies of India, Initial Return or Raw Return on Stock and Market Adjusted Excess Return on Stock is applied. The Non-Banking Financial Companies (NBFCs) selected for the study are-

1) Power Finance Corporation

2) Infrastructure Development Finance Company

3) Rural Electricity Corporation

4) Muthoot Finance

5) Edelweiss Capital

Note: The rationale for selecting the above mentioned Non-Banking Finance Companies is that, only these Non-Banking Finance Companies have issued initial public offer (IPO) during the period relevant for the research study.

Table 5.9(F)

List of selected Public and Private sector NBFCs in India

S.NO	Public Sector NBFCs	Private Sector NBFCs
1	Power Finance Corporation	Muthoot Finance
2	Infrastructure Development Finance Company	Edelweiss Capital
3	Rural Electricity Corporation	

Initial Return or Raw Return on Stock

The formula for calculating Initial or Raw Return on Stock is

$$\mathbf{R\_Ret = [Pt - P_0 / P_0] \times 100}$$

Where,

R_Ret. = Initial Return or Raw Return for stock

Pt = Closing price at time t

P0 = Closing price on listing day

1) Power Finance Corporation

Listed on 2007	Initial Return or Raw Return on Stock	Underpriced / Overpriced
4 years from listing (2011)	120.31%	Underpriced
5 years from listing (2012)	77.41%	Underpriced
6 years from listing (2013)	84.22%	Underpriced
7 years from listing (2014)	39.94%	Underpriced
8 years from listing (2015)	144.49%	Underpriced

2) Infrastructure Development Finance Company

Listed on 2010	Initial Return or Raw Return on Stock	Underpriced / Overpriced
1 year from listing (2011)	-44.25%	Overpriced
2 years from listing (2012)	-18.99%	Overpriced
3 years from listing (2013)	-47.5%	Overpriced
4 years from listing (2014)	-17.54%	Overpriced
5 years from listing (2015)	-44.29%	Overpriced

3) Rural Electrification Corporation

Listed on 2010	Initial Return or Raw Return on Stock	Underpriced / Overpriced
1 year from listing (2011)	- 46.51%	Overpriced
2 years from listing (2012)	- 38.19%	Overpriced
3 years from listing (2013)	- 43.70%	Overpriced
4 years from listing (2014)	- 19.85%	Overpriced
5 years from listing (2015)	- 36.21%	Overpriced

4) Muthoot Finance

Listed on 2011	Initial Return or Raw Return on Stock	Underpriced / Overpriced
1 year from listing (2012)	-33.39%	Overpriced
2 years from listing (2013)	-22.15%	Overpriced
3 years from listing (2014)	1.87%	Underpriced
4 years from listing (2015)	8.85%	Underpriced

5) Edelweiss Capital

Listed on 2007	Initial Return or Raw Return on Stock	Underpriced / Overpriced
4 years from listing (2011)	- 84.07%	Overpriced
5 years from listing (2012)	- 77.52%	Overpriced
3 years from listing (2013)	- 81.79%	Overpriced
4 years from listing (2014)	- 66.09%	Overpriced
5 years from listing (2015)	- 61.83%	Overpriced

Market Adjusted Excess Return (MAER)

Market Adjusted Excess Return = [Pt- Po / Po - Mt – Mo / Mo] x 100

1) Power Finance Corporation

Listed on 2007	Market Adjusted Excess Return (MAER)	Underpriced / Overpriced
4 years from listing (2011)	86.96%	Underpriced
5 years from listing 2012)	44.8%	Underpriced
6 years from listing (2013)	42.52%	Underpriced
7 years from listing (2014)	-13.22%	Overpriced
8 years from listing (2015)	31.95%	Underpriced

2) Infrastructure Development Finance Company

Listed on 2010	Market Adjusted Excess Return (MAER)	Underpriced / Overpriced
1 year from listing (2011)	-22.14%	Overpriced
2 years from listing (2012)	-13.99%	Overpriced
3 years from listing (2013)	-50.2%	Overpriced
4 years from listing (2014)	34.2%	Underpriced
5 years from listing (2015)	-67.2%	Overpriced

3) Rural Electrification Corporation (REC)

Listed on 2010	Market Adjusted Excess Return (MAER)	Underpriced / Overpriced
1 year from listing (2011)	-28.87%	Overpriced
2 years from listing (2012)	-27.69%	Overpriced
3 years from listing (2013)	-41.86%	Overpriced
4 years from listing (2014)	13.85%	Underpriced
5 years from listing (2015)	-13.32%	Overpriced

4) Muthoot Finance

Listed on 2011	**Market Adjusted Excess Return**	**Underpriced / Overpriced**
1 year from listing (2012)	-33.39%	Overpriced
2 years from listing (2013)	-15.91%	Overpriced
3 years from listing (2014)	19.67%	Underpriced
4 years from listing (2015)	35.42%	Underpriced

5) Edelweiss Capital

Listed on 2007	**Market Adjusted Excess Return (MAER)**	**Underpriced / Overpriced**
4 years from listing (2011)	- 106.18%	Overpriced
5 years from listing (2012)	- 82.52%	Overpriced
3 years from listing (2013)	- 79.09%	Overpriced
4 years from listing (2014)	- 31.86%	Overpriced

Table 5.9(G)

Consolidated Data of Underpriced / Overpriced Stocks of Banks and Non-Banking Finance Companies (NBFCs) on the basis of Initial Return on Stock and Market Adjusted Excess Return (MAER) on Stock.

i) Banks

S.NO	**Banks**	**On the basis of Initial Return or Raw Return on Stock of Banks**	
		Overall Underpriced	**Overall Overpriced**
1	Allahabad Bank	Underpriced	
2	Punjab National Bank	Underpriced	
3	Canara Bank		Overpriced
4	United Bank of India		Overpriced
5	Bank of Baroda		Overpriced
6	HDFC Bank	Underpriced	
7	Yes Bank	Underpriced	
8	ICICI Bank		Overpriced
9	Development Credit Bank	Underpriced	
10	South Indian Bank	Underpriced	
Scenario of Overall Underpriced / Overpriced Stocks of Banks		**6**	**4**

S.NO	Banks	On the basis of Market Adjusted Excess Return (MAER) on Stock of Banks	
		Overall Underpriced	**Overall Overpriced**
1	Allahabad Bank		Overpriced
2	Punjab National Bank		Overpriced
3	Canara Bank	Underpriced	
4	United Bank of India		Overpriced
5	Bank of Baroda	Underpriced	
6	HDFC Bank	Underpriced	
7	Yes Bank	Underpriced	
8	ICICI Bank		Overpriced
9	Development Credit Bank	Underpriced	
10	South Indian Bank	Underpriced	
Scenario of Overall Underpriced / Overpriced Stocks of Banks		**6**	**4**

ii) Non-Banking Finance Companies (NBFCs)

S.NO	Non-Banking Finance Companies (NBFCs)	On the basis of Initial Return or Raw Return on Stock of Banks	
		Overall Underpriced	**Overall Overpriced**
1	Power Finance Corporation	Underpriced	
2	Infrastructure Development Finance Company		Overpriced
3	Rural Electrification Corporation		Overpriced
4	Muthoot Finance*	Underpriced	Overpriced
5	Edelweiss Capital		Overpriced
Scenario of Overall Underpriced / Overpriced Stocks of NBFCs		**2**	**4**

*** The stock of Muthoot Finance is equally underpriced as well as overpriced.**

S.NO	Non-Banking Finance Companies (NBFCs)	On the basis of Market Adjusted Excess Return (MAER) on Stock	
		Overall Underpriced	**Overall Overpriced**
1	Power Finance Corporation	Mostly Underpriced	
2	Infrastructure Development Finance Company		Mostly Overpriced
3	Rural Electrification Corporation		Mostly Overpriced
4	Muthoot Finance*	Underpriced	Overpriced
5	Edelweiss Capital		Overpriced
Scenario of Overall Underpriced / Overpriced Stocks of NBFCs		**2**	**4**

*** The stock of Muthoot Finance is equally underpriced as well as overpriced.**

Note:

i) Mostly underpriced / overpriced implies that in majority of the periods from the date of listing of the stock, based on its initial return or raw return on stock, its value have been mostly underpriced than overpriced or mostly overpriced than underpriced.

ii) Mostly underpriced implies that in majority of the periods from the date of listing of the stock, based on its Market Adjusted Excess Return (MAER) on stock, its value have been mostly underpriced than overpriced or mostly overpriced than underpriced.

Thus, it may be observed that on the basis of initial return or raw return on stock of banks considered for the research study, six times their value have been underpriced and four times their value have been overpriced. The same phenomenon may be observed while ascertaining overall underpricing / overpricing of stocks of banks taken into account for the research study on the basis of Market Adjusted Excess Return (MAER) on stock.

In case of Non-Banking Finance Companies (NBFCs), it may be observed that on the basis of both initial return or raw return on stock and Market Adjusted Excess Return (MAER) on stock of the non-banking finance companies (NBFCs) considered for the research study, two times it has been overall underpriced and four times overall overpriced.

5.8 Comparison of the performance of the banks and Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors, in terms of their Initial Return or Raw Return on Stock and Market Adjusted Excess Return on Stock (MAER).

i) Standard Deviation and Coefficient of Variation of Initial Return or Raw Return on Stock and Market Adjusted Excess Return (MAER) of the banks of India operating under both public and private sectors, that have been taken into consideration for the research study.

Table 5.9(H)

Standard Deviation and Coefficient of Variation- Initial Return and MAER of Banks

Allahabad Bank		**Punjab National Bank**		**Canara Bank**	
Initial Return or Raw Return on Stock	**Market Adjusted Excess Return on Stock**	**Initial Return or Raw Return on Stock**	**Market Adjusted Excess Return on Stock**	**Initial Return or Raw Return on Stock**	**Market Adjusted Excess Return on Stock**
203.4%	-285%	149.53%	-171%	510.88%	14%
212%	30%	182.4%	-244%	233.71%	43%
212%	-203%	139.05%	- 106%	719.82%	300%
203.4%	-296%	415.45%	-15%	1249.64%	750%
229%	- 167%	492.93%	13%	644.40%	270%
203.4%	- 291%	319.6%	- 101%	877.49%	402%
Standard Deviation (θ) =0.099	Standard Deviation (θ) =1.25	Standard Deviation (θ) = 1.49	Standard Deviation (θ) =0.95	Standard Deviation (θ) =3.43	Standard Deviation (θ) =2.68
Co-efficient of Variation = 0.05%	Co-efficient of Variation= -0.62%	Co-efficient of Variation = 0.53%	Co-efficient of Variation = -0.91%	Co-efficient of Variation = 0.49%	Co-efficient of Variation = 0.90%

United Bank of India		**Bank of Baroda**	
Initial Return or Raw Return on Stock	**Market Adjusted Excess Return on Stock**	**Initial Return or Raw Return on Stock**	**Market Adjusted Excess Return on Stock**
-53.05%	- 116%	-27.06%	72%
-71.88%	- 113%	-30.84%	48%
-62.65%	- 132%	-35.6%	75%
		-54.11%	69%
		-22.98%	184%
		-42.28%	
Standard Deviation(θ)= 0.094	Standard Deviation(θ) =0.102	Standard Deviation(θ) = 0.11	Standard Deviation(θ)= 0.538
Coefficient of Variation= - 0.15%	Co-efficient of Variation = - 0.09%	Co-efficient of Variation = - 0.31%	Co-efficient of Variation = 0.59%

Private Sector Banks

HDFC Bank		**Yes Bank**		**ICICI Bank**		**Development Credit Bank**		**The South Indian Bank**	
Initial or Raw Return on Stock	Market Adjusted Excess Return (MAER)	Initial or Raw Return on Stock	Market Adjusted Excess Return (MAER)	Initial or Raw Return on Stock	Mark-et Adjusted Excess Return (MAER)	Initial or Raw Return on Stock	Market Adjusted Excess Return (MAE R)	Initial or Raw Retur n on Stock	Market Adjust ed Excess Return (MAE-R)
20,556.37%	20210%	203.45%	96%	- 72.3%	- 162%	66.35 %	29%	97.47 %	8%
33288%	32739%	90.79%	7%	- 39.41%	-240%	71.15 %	27%	343.9 4%	144%
19470.46%	19253%	109.29%	24%	- 27.77%	-263%	99.42 %	39%	246.9 7%	12%
32818.92%	32358%	372.70%	227%	- 44.08%	-243%	237.7 0%	131%	324.2 4%	125%
46048.65%	45492%	417.76%	266%	- 27.10%	-254%	236.9 2%		659.6 %	430%
8140.35%	7744%	481.25%	345%	- 17.99%	- 310%				
Standard Deviation (θ)=132.48	Standard Deviatio n (θ)= 1.66	Standard Deviatio n (θ)= 1.67	Standard Deviatio n (θ)=1.38	Standar d Deviati on (θ)= 0.19	Standard Deviation (θ)=0.48	Stand ard Devia tion (θ)= 0.87	Standa rd Deviat ion (θ)= 0.49	Stand ard Devia tion (θ)= 2.05	Stand ard Devia tion (θ)= 1.71
Co-efficient of Variation = 0.50%	Co-efficient of Variation = 0.01%	Co-efficient of Variation = 0.50%	Co-efficient of Variation = 0.86%	Co-efficien t of Variati on = -.50%	Co-efficient of Variation = -0.19%	Co-effici ent of Variat ion = 0.61 %	Co-efficie nt of Variati on = 0.86%	Co-effici ent of Varia tion = 0.61 %	Co-efficie nt of Variat ion = 1.19%

Non-Banking Finance Companies

ii) Standard Deviation and Coefficient of Variation of Initial Return or Raw Return on Stock and Market Adjusted Excess Return (MAER) of the Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors, that have been taken into consideration for the research study.

Table 5.9(I)

Standard Deviation and Coefficient of Variation- Initial Return and MAER of NBFCs

Power Finance Corporation		**Infrastructure Development Finance Company**		**Rural Electrification Corporation (REC)**	
Initial or Raw Return on Stock	Market Adjusted Excess Return (MAER)	Initial or Raw Return on Stock	Market Adjusted Excess Return (MAER)	Initial or Raw Return on Stock	Market Adjusted Excess Return (MAER)
120.31%	86.96%	-44.25%	-22.14%	- 46.51%	-28.87%
77.41%	44.8%	-18.99%	-13.99%	- 38.19%	-27.69%
84.22%	42.52%	-47.5%	-50.2%	- 43.70%	-41.86%
39.94%	-13.22%	-17.54%	34.2%	- 19.85%	13.85%
144.49%	31.95%	-44.29%	-67.2%	- 36.21%	-13.32%
Standard Deviation (θ)= 0.40	Standard Deviation (θ)= 0.35	Standard Deviation (θ)= 0.15	Standard Deviation (θ)= 0.39	Standard Deviation (θ)= 0.10	Standard Deviation (θ)= 0.21
Coefficient of Variation = 0.43%	Coefficient of Variation = 0.91%	Coefficient of Variation = -0.43%	Coefficient of Variation = -1.63%	Coefficient of Variation = - 0.27%	Coefficient of Variation = -1.07%

Muthoot Finance		Edelweiss Capital	
Initial or Raw Return on Stock	**Market Adjusted Excess Return (MAER)**	**Initial or Raw Return on Stock**	**Market Adjusted Excess Return (MAER)**
-33.39%	-33.39%	- 84.07%	- 106.18%
-22.15%	-15.91%	- 77.52%	- 82.52%
1.87%	19.67%	- 81.79%	- 79.09%
8.85%	35.42%	- 66.09%	- 31.86%
Standard Deviation (θ)= 0.20	Standard Deviation (θ)= 0.32	Standard Deviation (θ)= 0.08	Standard Deviation (θ)= 0.31
Coefficient of Variation = -1.78%	Coefficient of Variation = 22.06%	Coefficient of Variation = - 0.10%	Coefficient of Variation = -0.41%

5.9 Return on Assets - NBFCs

At this juncture it is imperative to discuss the impact on Return of Assets of selected Non-Banking Finance Companies (NBFCs) post initial public offer (IPO) issues considered for the research study. It will assist us to ascertain whether there is a significant difference or not in the Return on Assets of public and private sector NBFCs post their initial public offer (IPO) issues. The period considered for the study is 2012- 2016, since the selected NBFCs have issued initial public offers (IPOs) during the period 2007 – 2011.

F-Test (One Factor Model) has been used to comprehend whether there is a significant difference or not in Return on Assets. There are three government owned NBFCs, i.e. Power Finance Corporation, Infrastructure Development Finance Company (IDFC) and Rural Electricity Corporation (REC) and two private sector NBFCs i.e. Muthoot Finance and Edelweiss Capital.

Table 5.9(J)

Notations used for NBFCs considered for the Research Study

S.NO	NBFCs	Notations
1	Power Finance Corporation	A
2	Infrastructure Development Finance Company	B
3	Rural Electricity Corporation	C
4	Muthoot Finance	D
5	Edelweiss Capital	E

Note: The rationale for selecting the above mentioned Non-Banking Finance Companies is that, only these Non-Banking Finance Companies have issued initial public offer (IPO) during the period relevant for the research study.

Null Hypothesis (H0: There is no significant difference in the Return on Assets (ROA) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016.

Alternative Hypothesis (H1): There is a significant difference in the Return on Assets (ROA) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016.

Table 5.9 (K)

F-Test (One Factor Model)- Return on Assets of NBFCs

Years	A (Sample 1 – X1)	B (IDFC) (Sample 2- X2)	C (Sample 3- X3)	D (Sample 4 – X4)	E (Sample 5 – X5)
2012	2.33	3.25	3.0	4.85	1.84
2013	2.71	3.3	3.44	4.74	2.07
2014	2.93	2.79	3.51	4.53	3.55
2015	2.73	2.34	3.4	3.43	1.79
2016	2.62	-1.21	3.24	4.20	6.85
Mean ($\bar{X}$)	$\bar{X}1$ = 2.664	$\bar{X}2$ = 2.094	$\bar{X}3$ = 3.318	$\bar{X}4$ = 4.35	$\bar{X}5$ = 3.22

Grand Mean ($\bar{\bar{X}}$) = 2.664 + 2.094 + 3.318 + 4.35 + 3.22 = **3.13**

Variance between Samples

$(X1 - \bar{X})^2$	$(X2 - \bar{X})^2$	$(X3 - \bar{X})^2$	$(X4 - \bar{X})^2$	$(X5 - \bar{X})^2$
0.22	1.07	0.04	1.49	0.0081
0.22	1.07	0.04	1.49	0.0081
0.22	1.07	0.04	1.49	0.0081
0.22	1.07	0.04	1.49	0.0081
0.22	1.07	0.04	1.49	0.0081
$\sum(X1 - \bar{X})^2 = 1.1$	$\sum(X2 - \bar{X})^2 = 5.35$	$\sum(X3 - \bar{X})^2 = 0.2$	$\sum(X4 - \bar{X})^2 = 7.45$	$\sum(X5 - \bar{X})^2 = 0.0405$

SSC = Sum of squares between samples = 1.1 + 5.35 + 0.2 + 7.45 + 0.0405 = 14.14

Variance within Samples

X1	$(X1 - \bar{X}1)^2$	X2	$(X2 - \bar{X}2)^2$	X3	$(X3 - \bar{X}3)^2$	X4	$(X4 - \bar{X}4)^2$	X5	$(X5 - \bar{X}5)^2$
2.33	0.11	3.25	1.34	3.0	0.10	4.85	0.25	4.85	2.66
2.71	0.0021	3.3	1.45	3.44	0.014	4.74	0.15	4.74	2.31
2.93	0.0071	2.79	0.48	3.51	0.036	4.53	0.0324	4.53	1.72
2.73	0.0044	2.34	0.06	3.4	0.0067	3.43	0.85	3.43	0.0441
2.62	0.0019	-1.21	10.92	3.24	0.006	4.20	0.0225	4.20	0.96
$\sum(X1 - \bar{X}1)^2 = 0.1255$		$\sum(X2 - \bar{X}2)^2 = 14.25$		$\sum(X3 - \bar{X}3)^2 = 0.1627$		$\sum(X4 - \bar{X}4)^2 = 1.3049$		$\sum(X5 - \bar{X}5)^2 = 7.6941$	

SSE = Sum of squares within samples = 0.1255

ANOVA Table

Source of variation	**Sum of squares**	**V**	**Mean squares**
SSC = Between samples	**14.14**	**4**	**14.14 / 4 = 3.54**
SSE = Within samples	**0.1255**	**20**	**0.1255 / 20 = 0.0062**
Total	**SST = 14.297**	**24**	

Test Statistic: F = 3.54 / 0.0062 = 571

For v1 = 4, v2 =20 and for α= 0.05, the table value of F is $F_{0.05} = 2.87$

Decision: Since the calculated value of F = 571 is greater than the tabled value of $F_{0.05}$ = 2.87, so that the null hypothesis is rejected. Thus, there is a significant difference in the Return on Assets (ROA) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016.

It implies that the performance of initial public offer (IPO) of non-banking finance companies (NBFCs) operating under both public and private sectors that have been considered for the research study have been quite impressive in terms of its impact on Return on Assets post initial public offer.

5.9 (I) Return on Equity

In this section an attempt is made to observe whether there is a significant difference or not on the Return on Equity of selected NBFCs post IPO issues during the period 2012 to 2016. To conduct the analysis F-Test (One Factor Model) has been used.

Note: The rationale for selecting the above mentioned Non-Banking Finance Companies is that, only these Non-Banking Finance Companies have issued initial public offer (IPO) during the period relevant for the research study.

Null Hypothesis (H0: There is no significant difference in the Return on Equity (ROE) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016.

Alternative Hypothesis (H1): There is a significant difference in the Return on Equity (ROE) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016.

Table 5.9(L)

F-Test (One Factor Model)- Return on Equity of NBFCs

Years	A (Sample-X1)	B (Sample-X2)	C (Sample-X3)	D (Sample-X4)	E (Sample-X5)
2012	14.64	13.2	19.11	30.5	5.08
2013	18.37	13.11	21.9	26.88	3.45
2014	19.79	11.57	22.63	18.29	6.0
2015	18.5	9.95	21.60	13.19	7.56
2016	17.09	-12.11	19.66	14.41	9.7
Mean	$\bar{X}1$ = 17.678	$\bar{X}2$ = 7.144	$\bar{X}3$ = 20.98	$\bar{X}4$ = 20.654	$\bar{X}5$ =6.358

Grand Mean ($\bar{X}$) = 17.678 + 7.144 + 20.98 + 20.654 + 6.358 / 5 = 14.6

Variance between Samples

$(X1 - \bar{X})^2$	$(X2 - \bar{X})^2$	$(X3 - \bar{X})^2$	$(X4 - \bar{X})^2$	$(X5 - \bar{X})^2$
9.47	55.6	40.70	36.7	67.93
9.47	55.6	40.70	36.7	67.93
9.47	55.6	40.70	36.7	67.93
9.47	55.6	40.70	36.7	67.93
9.47	55.6	40.70	36.7	67.93
$\sum(X1 - \bar{X})^2$=47.35	$\sum(X2 - \bar{X})^2$=278	$\sum(X3 - \bar{X})^2$= 203.5	$\sum(X4 - \bar{X})^2$= 183.5	$\sum(X5 - \bar{X})^2$= 339.65

SSC = Sum of squares between samples = 47.35 + 278 + 203.5 + 183.5 + 339.65 = 1052

Variance within Samples

X1	$(X1 - \bar{X}1)^2$	X2	$(X2 - \bar{X}2)^2$	X3	$(X3 - \bar{X}3)^2$	X4	$(X4 - \bar{X}4)^2$	X5	$(X5 - \bar{X}5)^2$
14.64	9.24	13.2	36.72	19.11	3.5	30.5	97.02	5.08	1.74
18.37	0.48	13.11	35.64	21.9	0.85	26.88	38.81	3.45	8.70
19.79	4.5	11.57	19.62	22.63	2.72	18.29	5.57	6.0	214.62
18.5	0.67	9.95	7.9	21.60	0.38	13.19	55.65	7.56	171.35
17.09	0.35	-12.11	370.56	19.66	1.74	14.41	38.94	9.7	119.90
	$\sum(X1 - \bar{X}1)^2$= 15.24		$\sum(X2 - \bar{X}2)^2$= 470.44		$\sum(X3 - \bar{X}3)^2$=9.19		$\sum(X4 - \bar{X}4)^2$=235.99		$\sum(X5 - \bar{X}5)^2$= 516.31

SSE = Sum of squares within samples = 15.24 + 470.44 + 9.19 + 235.99 + 516.31 = 1247.1

ANOVA Table

Source of variation	**Sum of squares**	**V**	**Mean squares**
SSC = Between samples	**1052**	**4**	**1052 / 4 = 263**
SSE = Within	**1247.17**	**20**	**1247.17 / 20 = 62.36**

samples			
Total	**SST = 2299.17**	**24**	

Test Statistic: F = 263 / 62.36 = 4.22

For $v_1 = 4$, $v_2 = 20$ and for $\alpha = 0.05$, the table value of F is $F_{0.05} = 2.87$

Decision: Since the calculated value of F = 4.22 is greater than the tabled value of $F_{0.05} = 2.87$, so that the null hypothesis is rejected. Thus, there is a significant difference in the Return on Equity (ROE) of both public and private sector Non-Banking Finance Companies (NBFCs) taken into consideration for the research study post initial public offer (IPO) for the period 2012 – 2016. It implies that the performance of initial public offer (IPO) of non-banking finance companies (NBFCs) operating under both public and private sectors that have been considered for the research study have been quite impressive in terms of its impact on Return on Equity post initial public offer.

5.9A Opportune time for issue of IPO for Banks and NBFCs selected for the research study

At this juncture, it create mammoth academic and research interest to undertake a reconnaissance as to which year can be considered as the opportune time for IPO issue of banks and NBFCs selected for the research study. For this purpose, the financial yardstick considered is Return on Assets, as it depicts the efficiency in the utilization of assets in generating earnings. Since assets are acquired out of capital so Return on Assets can provide a vivid picture of the year which can be considered as the opportune year for issue of IPO. Further, simply stating a year as an opportune year by rule of thumb may not be apposite. In light of this the univariate tool of statistics, i..e. Standard Deviation and Coefficient of Variation have been used. In case of banks considered for the study, Standard Deviation and Coefficient of Variation have been applied on the Return on Assets for the period 2002-2015, i.e. the years during which the selected banks considered for the research study issued initial public offers. In case of selected NBFCs, the Return on Assets for the period 2007-2012 have been considered since the NBFCs considered for the research study issued IPO during the mentioned period. The year / (s) where Standard Deviation and Coefficient of Variation will be less may be considered to be the favourable year / (s) of initial public offer (IPO) issue.

5.9A (i) ***Computation of Standard Deviation and Coefficient of Variation on Return on Assets of selected public and private sector banks***

The selected public and private sector banks are as under:

i) Allahabad Bank

ii) Andhra Bank

iii) Canara Bank

iv) Punjab National Bank

v) United Bank of India

vi) Bank of Baroda

vii) ICICI Bank

viii) Yes Bank

ix) Development Credit Bank

x) The South Indian Bank

Year	**Standard Deviation**	**Coefficient of Variation**
2002	**0.28**	**39.44%**
2003	**1.12**	**145.45%**
2004	**0.63**	**68.5%**
2005	**1.48**	**352.38%**
2006	**1.09**	**198.18%**
2007	**0.28**	**35%**
2008	**0.24**	**27.3%**
2009	**0.83**	**120.3%**
2010	**0.78**	**95.12%**
2011	**0.44**	**50.4%**
2012	**0.40**	**44.54%**
2013	**0.35**	**38.9%**
2014	**0.73**	**107.35%**
2015	**0.54**	**75%**

Note: ***Please refer Point A, under Annexure-1 for the detailed computation of Standard Deviation and Coefficient of variation of the banks***

5.9A (ii) Computation of Standard Deviation and Coefficient of Variation of Return on Assets of Non-Banking Finance Companies (NBFCs) selected for the research study

The Standard Deviation and Coefficient of Variation for the period 2007 -2011 have been computed after taking into consideration the Return on Assets of the following Non-Banking Finance Companies (NBFCs) considered for the research study:

i) Power Finance Corporation

ii) Infrastructure Development Finance Company

iii) Rural Electricity Corporation

iv) Muthoot Finance

v) Edelweiss Capital

Year	**Standard Deviation**	**Coefficient of Variation**
2007	**0.91**	**32.7%**
2008	**0.65**	**29.4%**
2009	**0.62**	**25.43%**
2010	**0.98**	**34.8%**
2011	**1.18**	**39.73%**

Note: ***For detailed calculation pertaining to Standard Deviation and Coefficient of Variation of Return on Assets of Non-Banking Finance Companies (NBFCs) selected for the research study, please refer point B, under Annexure-I.***

5.9B Analysis of Primary Data

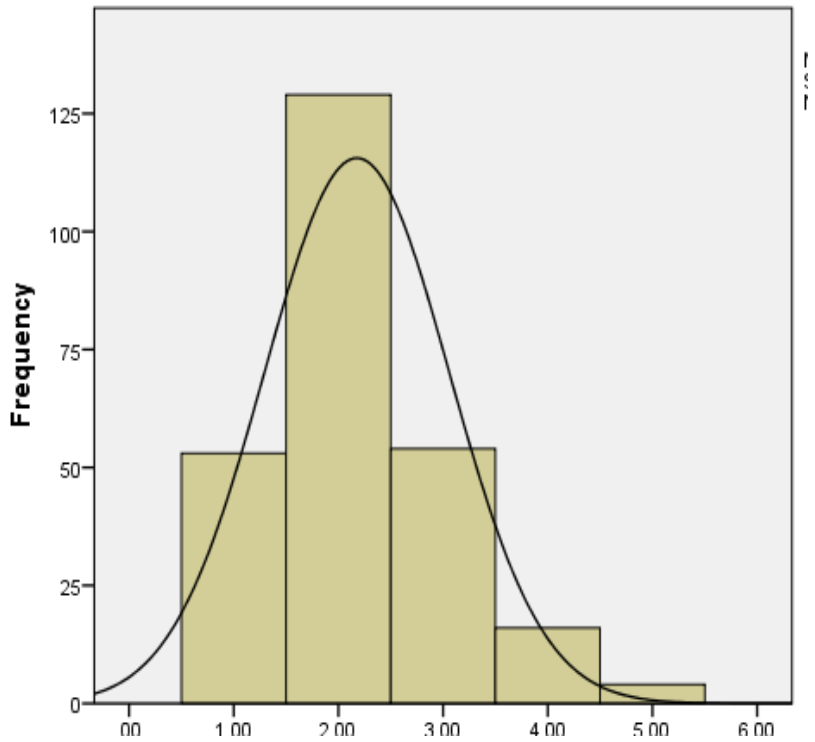
1. As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

Table 5.9(M)

Responses	Frequency
Fair (0-10)	53
Good (10-20)	129
Very Good (20-30)	54
Excellent (above 30)	16
Poor (nil)	4
Total	256

Mean ($\bar{X}$) = 2.18

Std. Dev = 0.884



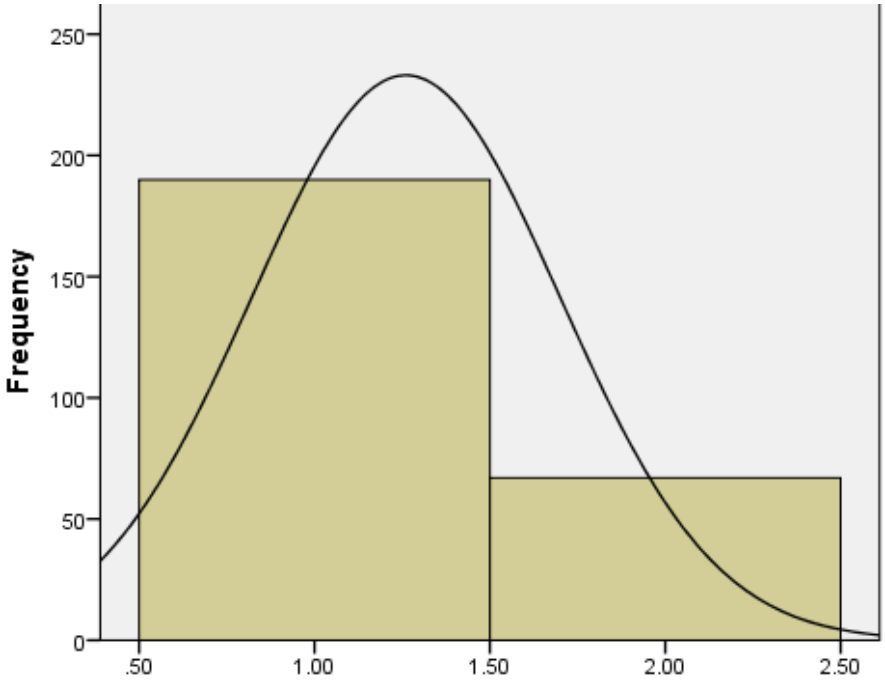
2. Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).

Table 5.9(N)

Responses	Frequency
Yes	190
No	67
Total	257

Mean ($\bar{X}$) = 1.26

Std. Dev = 0.44



Responses

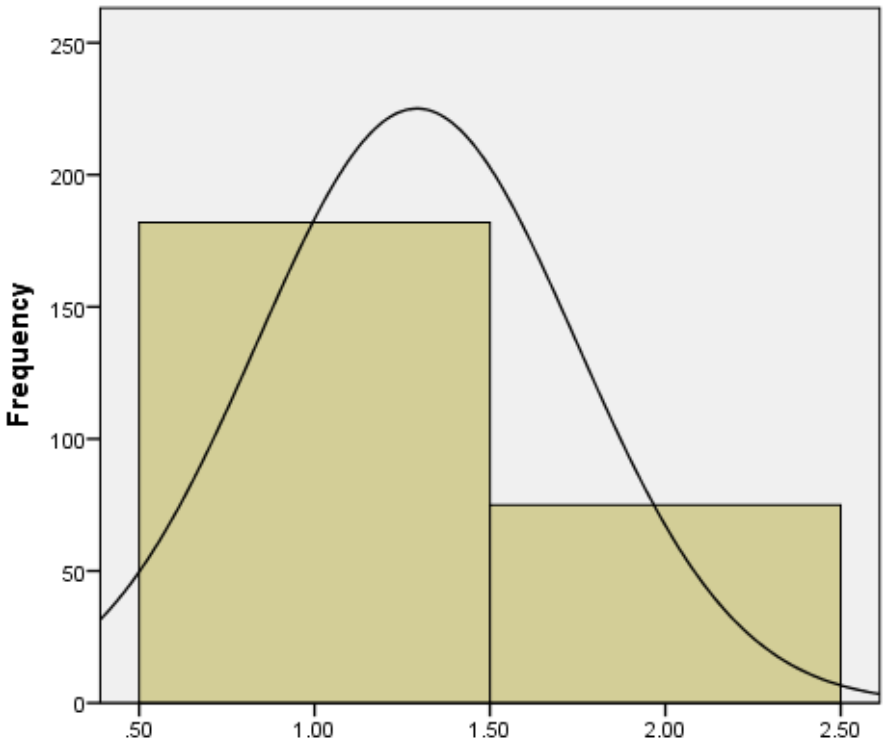
3. According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges

Table 5.9(O)

Responses	Frequency
Yes	182
No	75
Total	257

Mean ($\bar{X}$) = 1.29

Std. Dev = 0.455



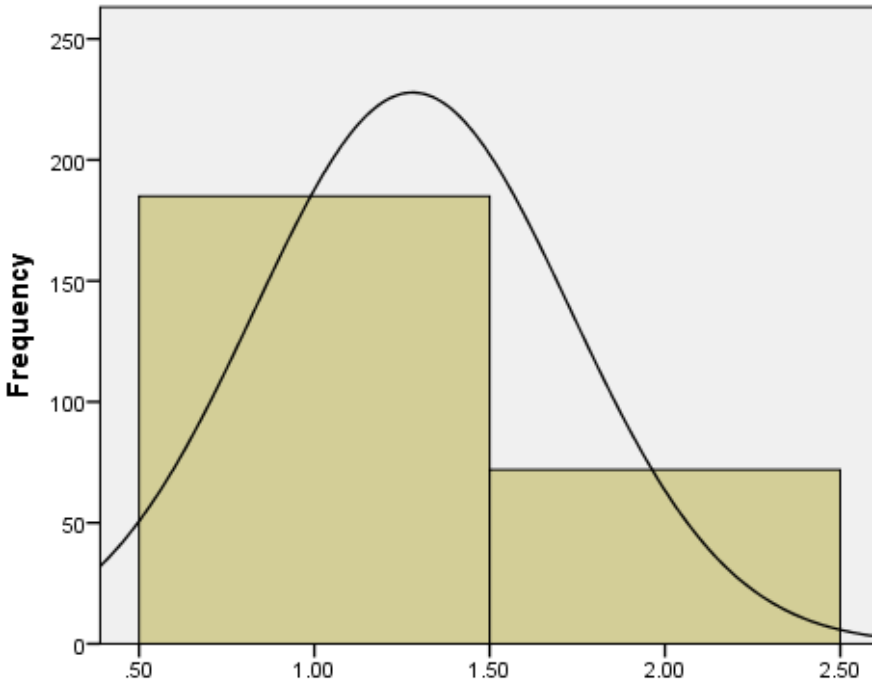
4. According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Table 5.9(P)

Responses	Frequency
Yes	185
No	72
Total	257

Mean ($\bar{X}$) = 1.28

Std. Dev = 0.45



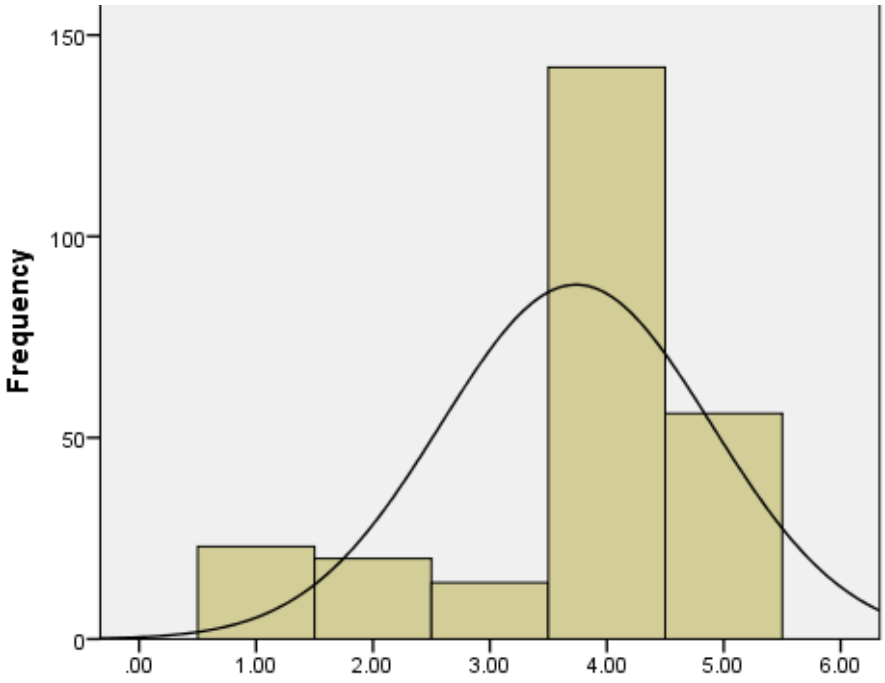
Responses

5. In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

Table 5.9(Q)

Responses	Frequency
strongly disagree	23
Disagree	20
Neutral	14
Agree	142
Strongly agree	56
Total	255

Mean ($\bar{X}$) = 3.74
Std. Dev = 1.156



Responses

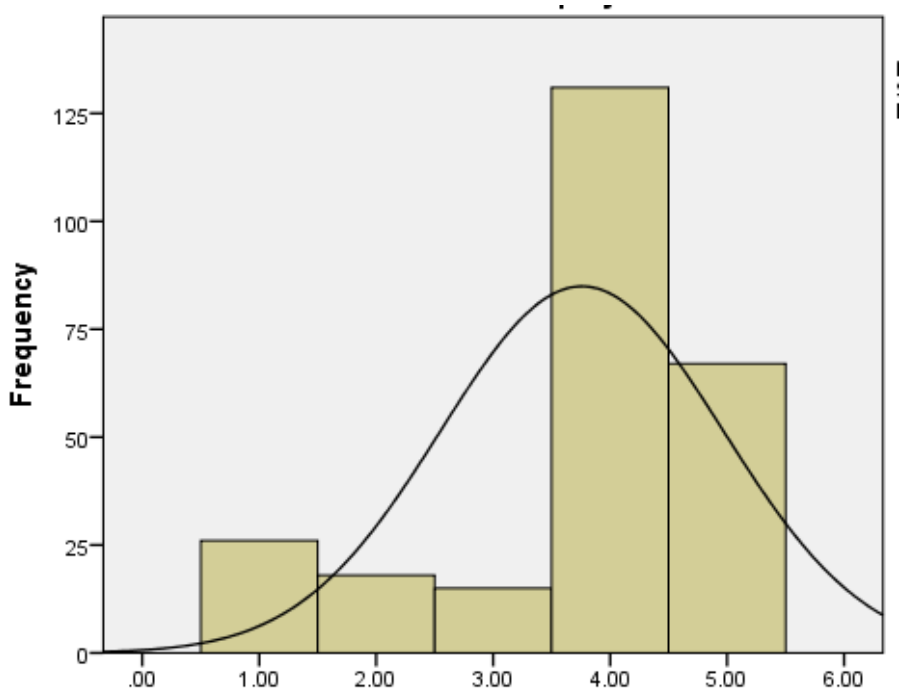
6. Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

Table 5.9(R)

Responses	Frequency
strongly disagree	26
Disagree	18
Neutral	15
Agree	131
Strongly agree	67
Total	257

Mean ($\bar{X}$) = 3.76

Std. Dev = 1.207



Responses

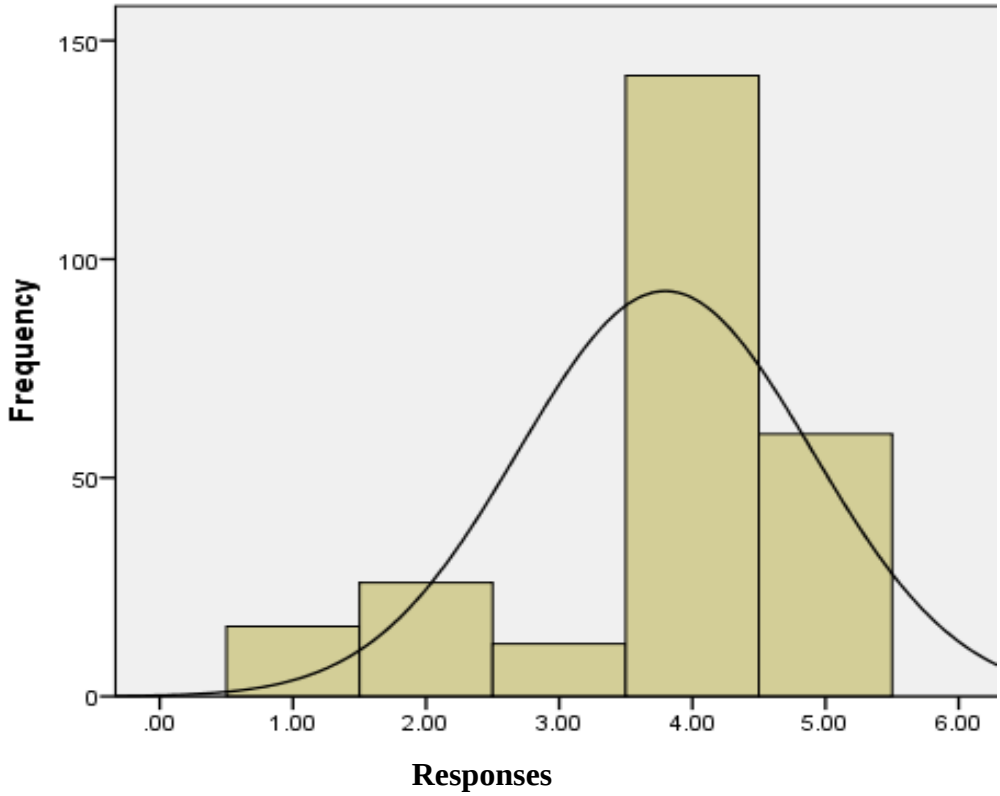
7. Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

Table 5.9(S)

Responses	Frequency
strongly disagree	16
Disagree	26
Neutral	12
Agree	142
Strongly agree	60
Total	256

Mean ($\bar{X}$) = 3.80

Std. Dev = 1.102



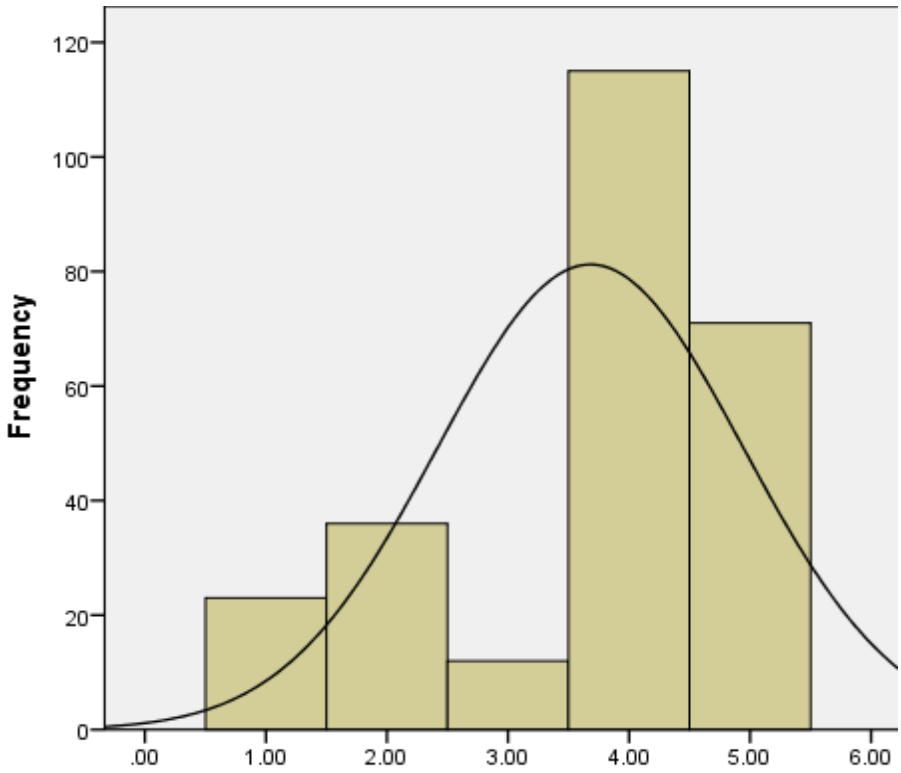
8. Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

Table 5.9 (T)

Responses	Frequency
strongly disagree	23
Disagree	36
Neutral	12
Agree	115
Strongly agree	71
Total	257

Mean ($\bar{X}$) = 3.68

Std. Dev= 1.262



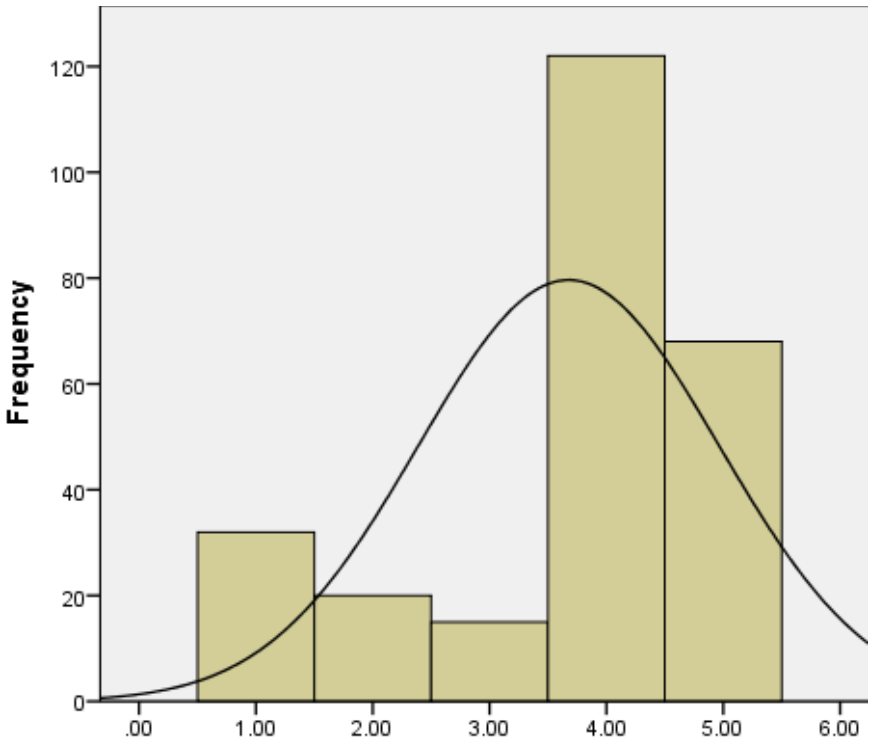
9. Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

Table 5.9 (U)

Responses	Frequency
strongly disagree	32
Disagree	20
Neutral	15
Agree	122
Strongly agree	68
Total	257

Mean ($\bar{X}$) = 3.68

Std. Dev = 1.287



F-Test (One Factor Model)

With the help of the mentioned statistical tool, the nine vital questions that are the quintessence of this research study have been analysed on the basis of five significant demographic factors- Age; Gender; Educational Qualification; Years of Experience and Occupation. The nine vital questions are as follows:

1) As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

2) Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT)?

3) According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges?

4) According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

5) In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

6) Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

7) Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

8) Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

9) Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

The analysis by applying F-Test (One Factor Model) is as under:

1) As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

Table 5.9(W)

S.No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	4, 251	2.451	.047	With reference to F statistic and p-value, it can be inferred that there is a substantial variation in the views of the respondents on the basis of their age while rating the quantum of IPO issue by Banking and NBFCs during the period 2000-2015. It implies that there seems to be a divided opinion regarding the formation of a trend with reference to initial public offer (IPO) of banking and non-banking finance companies during the period 2000-2015.
2	**Gender**	4, 251	.589	.671	With reference to F statistic and p-value, it can be inferred that there is no major difference in the views of the respondents on the basis of gender while rating the quantum of IPO issue by Banking and NBFCs during the period 2000-2015.

					Thus, on the basis of gender it may be observed that is a consensus regarding the trend of initial public offer (IPO) of banks and non-banking finance companies is noticeable during the above mentioned period.
3	**Educational Qualification**	4, 251	.259	.904	With reference to F statistic and p-value, it can be deduced that there is absence of significant divergence in the opinions of the respondents on the basis of educational qualification while rating the quantum of IPO issue by Banking and NBFCs during the period 2000-2015. Therefore, it may be stated that educational qualification wise, respondents have uniformity in the view that there is a presence of trend of initial public offer (IPO) of banking and non-banking finance companies during the aforesaid period.
4	**Years of Experience**	4, 251	1.963	.101	With reference to F statistic and p-value, it can be concluded that there is no substantial variation in the views of the respondents on the basis of years of experience while rating the quantum of IPO issue by Banking and NBFCs during the period 2000-2015. Thus, it may be opined that on the basis of years of experience of the respondents, there seems to be an uniformity in the views regarding the trend of initial public offer (IPO) issue of banks and non-banking finance companies during the above mentioned period, i.e. a trend has been formed.
5	**Occupation**	4, 251	.352	.842	With reference to F statistic and p-value, it can be concluded that there exists no significant difference in the views of the respondents on the basis of occupation while rating the quantum of IPO issue by Banking and NBFCs during the period 2000-2015.

					Thus, it may be concluded that on the basis of occupation of the respondents, there seems to be a formation of a trend of initial public offer (IPO) issue of banking and non-banking finance companies during the aforesaid period.

2) Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT)?

Table 5.9(X)

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	1, 255	4.282	.040	With reference to F statistic and p-value, there is a substantial difference in the views of the respondents on the basis of their age with reference to presence of positive and high correlation between IPO issues (value-wise) of Banks and NBFCs and their Reported Net Profit after Tax (PAT). Thus, on the basis of the age of the respondents, there seems to be a divided view regarding the performance of initial public offer of banking and non-banking finance companies in terms of a strong correlation between their initial public offer (IPO) issues (value-wise) and Reported Net Profit after Tax (PAT)
2	**Gender**	1, 255	1.218	.271	With reference to F statistic and p-value, there exists no significant difference in the views of the respondents on the basis of gender regarding presence of positive and high correlation between IPO issues (value-wise) of Banks and NBFCs and their Reported Net Profit after Tax (PAT). Thus, on the basis of gender, it may be

					opined that respondents have a consensus regarding a correlation between issue of initial public offer (IPO) by banking and non-banking finance companies and initial public offer (IPO) performance in terms of Reported Net Profit after Tax (PAT).
3	**Educational Qualification**	1, 255	2.762	.098	With reference to F statistic and p-value, there exists no significant difference in the opinions of the respondents on the basis of their educational qualification regarding presence of positive and high correlation between IPO issues (value-wise) of Banks and NBFCs and their Reported Net Profit after Tax (PAT). Therefore, it may be stated that going by the educational qualification of the respondents there seems to be an uniformity in their thought process regarding the impact of initial public offer (IPO) performance of banking and non-banking finance companies on Reported Net Profit after Tax (PAT).
4	**Years of Experience**	1, 255	8.977	.003	With reference to F statistic and p-value, there is a significant variation in the opinions of the respondents on the basis of their years of experience regarding presence of positive and high correlation between IPO issues (value-wise) of Banks and NBFCs and their Reported Net Profit after Tax (PAT) Thus, on the basis of years of experience of the respondents, there appears to be a divided opinion regarding the performance of initial public offer of banking and non-banking finance companies in terms of a strong correlation between their initial public offer (IPO) issues (value-wise) and Reported Net Profit after Tax (PAT)
5	**Occupation**	1, 255	1.083	.299	With reference to F statistic and p-value, there exists no significant difference in the views of the respondents on the basis of their occupation regarding presence of positive and high correlation between IPO issues (value-wise) of Banks and NBFCs and their Reported Net Profit after Tax (PAT)

					Therefore, it may be stated that on the basis of the occupation of the respondents, an uniformity may be observed in their thought process regarding the impact of initial public offer (IPO) performance of banking and non-banking finance companies on Reported Net Profit after Tax (PAT).

Table 5.9(Y)

3) According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges?

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	1, 255	.001	.980	With reference to F statistic and p-value, there exists no significant difference in the views of the respondents on the basis of their age regarding impact of Global Economic Crisis on listing of IPOs of Banks and NBFCs in the stock exchanges. Therefore, it may be stated that on the basis of the age of the respondents, an uniformity may be observed in their thought process regarding the impact of global economic crisis on the initial public offer (IPO) listing of banks and non-banking finance companies (NBFCs) in the stock exchanges. So it may also be inferred that respondents have strongly agree that global economic crisis do exerted an impact on the initial public offer (IPO) of banks and non-banking finance companies (NBFCs)

2	**Gender**	1, 255	.217	.642	With reference to F statistic and p-value, there exists no significant difference in the views of the respondents on the basis of gender regarding impact of Global Economic Crisis on listing of IPOs of Banks and NBFCs in the stock exchanges Therefore, it may be stated that on the basis of the gender of the respondents, there appears to be a consensus regarding the impact of global economic crisis on the initial public offer (IPO) listing of banks and non-banking finance companies (NBFCs) in the stock exchanges. So it may also be inferred that respondents have strongly agree that global economic crisis do exerted an impact on the initial public offer (IPO) of banks and non-banking finance companies (NBFCs). Thus, global economic crisis has exerted an impact on initial public offers (IPOs) of banks as well as non-banking finance companies.
3	**Educational Qualification**	1, 255	.040	.842	With reference to F statistic and p-value, there exists no significant difference in the views of the respondents on the basis of their educational qualification regarding impact of Global Economic Crisis on listing of IPOs of Banks and NBFCs in the stock exchanges Thus, it may be stated that on the basis of the educational qualification of the respondents, there appears to be a consensus regarding the impact of global economic crisis on the initial public offer (IPO) listing of banks and non-banking finance companies (NBFCs) in the stock exchanges. Therefore, it may also be inferred that global economic crisis has exerted an impact on initial public offers (IPOs) of banks as well as non-banking finance

					companies.
4	**Years of Experience**	1, 255	.021	.886	Since p-value is greater than 0.05, there is no substantial divergence in the views of the respondents on the basis of their years of experience regarding impact of Global Economic Crisis on listing of IPOs of Banks and NBFCs in the stock exchanges. Thus, it may be stated that on the basis of the years of experience of the respondents, there seems to an agreement among the respondents on the view that global economic crisis had impacted regarding the impact of global economic crisis on the initial public offer (IPO) listing of banks and non-banking finance companies (NBFCs) in the stock exchanges. So it may also be inferred that respondents have strongly agree that global economic crisis do exerted an impact on the initial public offer (IPO) of banks and non-banking finance companies (NBFCs).
5	**Occupation**	1, 255	4.882	.028	With reference to F statistic and p-value, there is a significant variation in the opinions of the respondents on the basis of their occupation regarding impact of Global Economic Crisis on listing of IPOs of Banks and NBFCs in the stock exchanges Based upon the occupation of the respondents, it may be inferred that there appears to be non-uniformity in the views of the respondents regarding the impact of global economic crisis on the initial public offer (IPO) of banks and non-banking finance companies (NBFCs).

4) According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Table 5.9(Z)

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	1, 255	.607	.437	With reference to F statistic and p-value, it may be inferred that there exists no significant variation in the opinions of the respondents on the basis of their age pertaining to listing rules of Indian stock exchanges acting as a catalyst in listing of IPOs of companies, especially Banking and NBFCs. On the basis of the age of the respondents, it may be concluded that there seems to be an uniformity in the views of the respondents regarding listing rules of Indian stock exchanges acting as a catalyst for initial public offers (IPOs) of banks and non-banking finance companies (NBFCs), i.e. the listing rules have been favourable and have contributed immensely in enhancing the initial public offer (IPO) performance of banks and non-banking finance companies.
2	**Gender**	1, 255	.034	.855	With reference to F statistic and p-value, it can be concluded that there is no significant difference in the views of the respondents on the basis of gender pertaining to listing rules of Indian stock exchanges acting as a catalyst in listing of IPOs of companies, especially Banking and NBFCs. With reference to the gender of the respondents, it may be concluded that there seems to be a consensus among the respondents regarding listing rules of Indian stock exchanges acting as a catalyst for initial public offers (IPOs) of banks and non-banking finance companies (NBFCs), i.e. the listing rules have been favourable

					and have contributed immensely in enhancing the initial public offer (IPO) performance of banks and non-banking finance companies.
3	**Educational Qualification**	1, 255	.283	.595	With reference to F statistic and p-value, it can be stated that there is no substantialvariation in the opinions of the respondents on the basis of their educational qualification pertaining to listing rules of Indian stock exchanges acting as a catalyst in listing of IPOs of companies, especially Banking and NBFCs. With reference to the educational qualification of the respondents, it may be stated that there appears to be a consensus among the respondents regarding listing rules of Indian stock exchanges acting as a catalyst for initial public offers (IPOs) of banks and non-banking finance companies (NBFCs), i.e. the listing rules have been favourable and have contributed immensely in enhancing the initial public offer (IPO) performance of banks and non-banking finance companies.
4	**Years of Experience**	1, 255	.383	.537	With reference to F statistic and p-value, it can be concluded that there is no significant difference in the views of the respondents on the basis of their years of experience pertaining to listing rules of Indian stock exchanges acting as a catalyst in listing of IPOs of companies, especially Banking and NBFCs. With reference to the years of experience of the respondents, it may be inferred that there seems to be an uniformity in the thought process of the respondents regarding listing rules of Indian stock exchanges acting as a catalyst for initial public offers (IPOs) of banks and non-banking finance companies (NBFCs), i.e. the listing rules have been favourable and have contributed immensely in enhancing the initial public offer (IPO) performance of banks and non-banking finance companies.

5	**Occupation**	1, 255	.429	.513	With reference to F statistic and p-value, it may be deduced that there is no substantial variation in the opinions of the respondents on the basis of their occupation pertaining to listing rules of Indian stock exchanges acting as a catalyst in listing of IPOs of companies, especially Banking and NBFCs. On the basis of the occupation of the respondents, it may be inferred that respondents have agreed on the fact that listing rules of Indian stock exchanges have acted as a catalyst for initial public offers (IPOs) of banks and non-banking finance companies (NBFCs), i.e. the listing rules have been favourable and have contributed immensely in enhancing the initial public offer (IPO) performance of banks and non-banking finance companies.

5) In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

Table 5.9(Z1)

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	P-value	Inference
1	**Age of the respondent**	4, 250	2.005	.094	With reference to F statistic and p-value, it can be stated that there is no substantial variation in the views of the respondents on the basis of their age regarding boosting of performance of banks operating under public sector in terms of their Return on Assets and Equity due to IPO issued by them during the period 2000-2015.

					On the basis of age of the respondents, it may be inferred that there is an uniformity in the opinions of the respondents regarding initial public offer (IPO) issue by public sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity. Thus, respondents appear to be in consensus regarding a robust initial public offer (IPO) performance of public sector banks.
2	**Gender**	4, 250	2.617	.036	With reference to F statistic and p-value, there is a substantial variation in the views of the respondents on the basis of gender regarding bolstering in performance of public sector banks with reference to Return on Assets and Equity due to IPO issued by them during the period 2000-2015. With reference to the gender of the respondents, it may be concluded that there seems to be a non- uniformity in the views of the respondents regarding initial public offer (IPO) issue by public sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.
3	**Educational Qualification**	4, 250	1.832	.123	With reference to F statistic and p-value, there exists no significant difference in the views of the respondents on the basis of their educational qualification pertaining to augmentation in performance of banks operating under public sector in terms of their Return on Assets and Equity due to IPO issued by them during the period 2000-2015. Based upon the educational qualification of the respondents, it may be stated that there is a consensus among the respondents regarding initial public offer (IPO) issue by public sector banks during the period 2000-2015 and its positive impact on key financial variables, i.e. Return on Assets and Equity. Thus, respondents seem to have uniformity

					in their opinions regarding a robust initial public offer (IPO) performance of public sector banks.
4	**Years of Experience**	4, 250	2.827	.025	With reference to F statistic and p-value, there is a significant variation in the views of the respondents on the basis of years of experience regarding bolstering in performance of banks operating under public sector with reference to their Return on Assets and Equity due to IPO issued by them during the period 2000-2015. Thus, on the basis of the years of experience of the respondents, it may be concluded that there seems to be a non- uniformity in the views of the respondents regarding initial public offer (IPO) issue by public sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.
5	**Occupation**	4, 250	2.661	.033	With reference to F statistic and p-value, there is a significant variation in the opinions of the respondents on the basis of occupation regarding bolstering in performance of banks operating under public sector with reference to their Return on Assets and Equity due to IPO issued by them during the period 2000-2015 Therefore, on the basis of the years of experience to be lack of consensus among the respondents of the respondents, it may be concluded that there seems regarding initial public offer (IPO) issue by public sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity

6) Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

Table 5.9(Z2)

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	4,252	.737	.568	With reference to F statistic and p-value, it can be opined that there is no substantial variation in the views of the respondents on the basis of their age pertaining to the improvement in Return on Assets and Equity of banks operating under private sector due to issue of initial public offers (IPO) during the period 2000-2015. Therefore, on the basis of age of the respondents of the respondents, it may be concluded that there seems to be an uniformity in their opinions regarding initial public offer (IPO) issue by private sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity
2	**Gender**	4,252	3.153	.015	With reference to F statistic and p-value, it can be inferred that there is a substantial variation in the opinions of the respondents on the basis of gender pertaining to the improvement in Return on Assets and Equity of banks operating under private sector due to issue of initial public offers (IPOs) during the period 2000-2015. Based upon the gender of the respondents, it may be inferred that respondents seems to be equivocal regarding initial public offer (IPO) issue by private sector banks during the period 2000-2015 and its positive impact on

					their key financial variables, i.e. Return on Assets and Equity
3	**Educational Qualification**	4,252	1.235	.297	With reference to F statistic and p-value, it can be stated that there is no significant variation in the opinions of the respondents on the basis of their educational qualification with reference to the improvement in Return on Assets and Equity of banks operating under private due to issue of initial public offers (IPOs) during the period 2000-2015. Therefore, on the basis of educational qualification of the respondents, it may be concluded that there seems to be a consensus among the respondents regarding initial public offer (IPO) issue by private sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.
4	**Years of Experience**	4, 252	1.696	.151	With reference to F statistic and p-value, it can be stated that there exists no significant difference in the views of the respondents on the basis of their years of experience pertaining to the improvement in Return on Assets and Equity of private sector banks due to IPO issued by them during the period 2000-2015. With reference to the years of experience of the respondents, it may be concluded that there seems to be a consensus among the respondents regarding initial public offer (IPO) issue by private sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.
5	**Occupation**	4, 252	1.366	.246	With reference to F statistic and p-value it can be stated that there is no substantial variation in the opinions of the respondents on the basis of their occupation pertaining to the improvement in Return on Assets and Equity of banks operating under private sector due to initial public offers (IPOs) during the period 2000-2015.

					Thus, on the basis of the occupation of the respondents, it may be inferred that there seems to be a consensus among the respondents regarding initial public offer (IPO) issue by private sector banks during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.

7) Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

Table 5.9(Z3)

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	4, 252	2.047	.088	With reference to F statistic and p-value, it can be inferred that there is no significant variation in the opinions of the respondents on the basis of their age regarding positive impact on the Return on Assets and Equity of NBFCs due to IPO issued by them during the period 2000-2015. Thus, on the basis of the age of the respondents, it may be inferred that there seems to be a consensus among the respondents regarding initial public offer (IPO) issue by non-banking finance companies (NBFCs) during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.

2	**Gender**	4, 252	3.024	.018	With reference to F statistic and p-value, it can be inferred that there is a significant variation in the opinions of the respondents on the basis of their gender regarding positive impact on the Return on Assets and Equity of NBFCs due to IPO issued by them during the period 2000-2015 Therefore, on the basis of gender of the respondents, there seems to be a divided opinion among the respondents regarding initial public offer (IPO) issue by non-banking finance companies (NBFCs) during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.
3	**Educational Qualification**	4, 252	1.609	.172	With reference to F statistic and p-value, it can be inferred that there is no substantial variation in the opinions of the respondents on the basis of their educational qualification regarding positive impact on the Return on Assets and Equity of NBFCs due to IPO issued by them during the period 2000-2015. Based upon the educational qualification of the respondents, it may be concluded that the respondents are having uniformity in their views regarding initial public offer (IPO) issue by non-banking finance companies (NBFCs) during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.
4	**Years of Experience**	4,252	2.888	.023	With reference to F statistic and p-value, it can be inferred that there is a significant variation in the views of the respondents on the basis of their years of experience regarding positive impact on the Return on Assets and Equity of NBFCs due to IPO issued by them during the period 2000-2015. Therefore, on the basis of years of experience of the respondents, they seem to be equivocal regarding initial public offer (IPO) issue by non-banking finance companies (NBFCs) during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on

					Assets and Equity.
5	**Occupation**	4,252	1.042	.386	With reference to F statistic and p-value, it can be concluded that there exists no significant difference in the views of the respondents on the basis of their occupation regarding positive impact on the Return on Assets and Equity of NBFCs due to IPO issued by them during the period 2000-2015. Based upon the occupation of the respondents, it may be inferred that the respondents are having consensus regarding initial public offer (IPO) issue by non-banking finance companies (NBFCs) during the period 2000-2015 and its positive impact on their key financial variables, i.e. Return on Assets and Equity.

8) Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

Table 5.9(Z4)

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	4, 252	.854	.492	With reference to F statistic and p-value, it can be concluded that on the basis of age of the respondents, there is no significant difference in their views / opinions pertaining to conduciveness of current economic scenario for IPO issue by banks and NBFCs. On the basis of age of the respondents, it may be inferred that respondents are in agreement with the fact that current economic scenario is conducive for initial public offer (IPO) issue by banks and non-banking finance companies (NBFCs). Thus, giving an indication of a positive post initial public

					offer (IPO) performance of banks and non-banking finance companies in terms of its impact on key financial variables, Return on Assets; Return on Equity; Reported Net Profit after Tax (PAT) etc.
2	**Gender**	4, 252	.184	.947	With reference to F statistic and p-value, it can be concluded that on the basis of gender of the respondents, there is no significant difference in their views / opinions pertaining to conduciveness of current economic scenario for IPO issue by banks and NBFCs. With reference to gender of the respondents, it may be concluded that respondents are in agreement with the fact that current economic scenario is conducive for initial public offer (IPO) issue by banks and non-banking finance companies (NBFCs). Thus, giving an indication of a positive post initial public offer (IPO) performance of banks and non-banking finance companies in terms of its impact on key financial variables, Return on Assets; Return on Equity; Reported Net Profit after Tax (PAT) etc.
3	**Educational Qualification**	4, 252	1.826	.124	With reference to F statistic and p-value, it can be concluded that on the basis of educational qualification of the respondents, there is no significant difference in their views / opinions pertaining to conduciveness of current economic scenario for IPO issue by banks and NBFCs. Based upon the educational qualification of the respondents, it may be stated that respondents are having uniformity in their opinions that current economic scenario is conducive for initial public offer (IPO) issue by banks and non-banking finance companies (NBFCs). Thus, giving an indication of a positive post initial public offer (IPO) performance of banks and non-banking finance companies in terms of its impact on key financial variables, Return on Assets; Return on Equity; Reported Net Profit after Tax (PAT) etc.
4	**Years of Experience**	4, 252	1.244	.293	With reference to F statistic and p-value, it can be inferred that on the basis of years of experience of the respondents, there is no significant difference in their views pertaining to conduciveness of current economic scenario for IPO issue by banks and NBFCs.

					Thus, on the basis of years of experience of the respondents, it may be concluded that respondents are having uniformity in their views that current economic scenario is conducive for initial public offer (IPO) issue by banks and non-banking finance companies (NBFCs). Thus, giving an indication of a positive post initial public offer (IPO) performance of banks and non-banking finance companies in terms of its impact on key financial variables, Return on Assets; Return on Equity; Reported Net Profit after Tax (PAT) etc.
5	**Occupation**	4,252	.920	.453	With reference to F statistic and p-value, it can be deduced that with reference to the occupation of the respondents, there is no significant difference in their views pertaining to conduciveness of current economic scenario for initial public offer (IPO) issue by banks and NBFCs. Thus, on the basis of occupation of the respondents, it may be inferred that respondents are having uniformity in their views that current economic scenario is conducive for initial public offer (IPO) issue by banks and non-banking finance companies (NBFCs). Thus, giving an indication of a positive post initial public offer (IPO) performance of banks and non-banking finance companies in terms of its impact on key financial variables, Return on Assets; Return on Equity; Reported Net Profit after Tax (PAT) etc.

9) Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

Table 5.9(Z5)

S. No.	Demographic Factors	Degree of freedom (df)	F statistic	p-value	Inference
1	**Age of the respondent**	4, 252	3.195	.014	With reference to F statistic and p-value, it can be stated that there is a substantial variation in the views of the respondents on basis of their age regarding the debilitating impact on the initial public offers (IPOs) of banks of India operating under both public and private sectors on account of soaring Non-Performing Assets. Thus, based on age of the respondents, it may be concluded that there seems to be a divided view among the respondents regarding the negative impact of initial public offers (IPOs) of both public and private sector banks of India due to rising non-performing assets.
2	**Gender**	4, 252	.677	.609	With reference to F statistic and p-value, it can be inferred that on the basis of gender of the respondents, there is no significant difference in their views / opinions regarding the debilitating impact on the initial public offers (IPOs) banks of India operating under both public and private sectors due to soaring non-performing assets (NPAs). Based on the gender of respondents of the population, it may be opined that there appears to be a consensus among the respondents that soaring non-performing assets have not exerted a debilitating impact on the initial public offers (IPOs) of both public and private sector banks of India.
3	**Educational Qualification**	4, 252	1.618	.170	With reference to F statistic and p-value, it can be inferred that on the basis of educational qualification of the respondents, there is no significant difference in their views / opinions regarding the debilitating impact on the initial public offers (IPOs) of banks of India operating under both public and private sectors due to soaring Non-Performing Assets

					On the basis of educational qualification of the respondents of the population, it may be opined that there appears to be an uniformity of opinions among the respondents that soaring non-performing assets have not exerted a debilitating impact on the initial public offers (IPOs) of both public and private sector banks of India.
4	**Years of Experience**	4, 252	4.044	.003	With reference to F statistic and p-value, it can be stated that there is a substantial variation in the views of the respondents on basis of their years of experience regarding the debilitating impact on the issue of initial public offers (IPOs) by banks of India operating under both public and private sectors due to soaring Non-Performing Assets. Thus, based on years of experience of the respondents, it may be stated that there seems to be a divided opinion among the respondents regarding the negative impact of initial public offers (IPOs) of both public and private sector banks of India due to rising non-performing assets.
5	**Occupation**	4, 252	2.052	.088	With reference to F statistic and p-value, it can be concluded that with reference to the occupation of the respondents, there is no significant difference in their views / opinions regarding the debilitating impact on the issue of initial public offers (IPOs) of banks of India operating under both public and private sectors due to soaring Non-Performing Assets. On the basis of educational qualification of the respondents of the population, it may be opined that there appears to be an uniformity of views among the respondents that increasing non-performing assets have not exerted a debilitating impact on the initial public offers (IPOs) of both public and private sector banks of India.

CHAPTER-6

FINDINGS, DISCUSSION AND CONCLUSION

6.1 Findings

In order to have holistic research both primary and secondary data have been utilized in the research study. In case of primary data, large sample have been collated, i.e. data have been collected from 257 respondents by providing an online questionnaire to different sections of the respondents who possess an extensive knowledge and expertise regarding the Indian capital market. Secondary data analysis has been done by referring the key financial variables from various authentic sources.

The findings have been covered under two sections, i.e. key findings on the basis primary data and key findings on the basis of secondary data.

1) **Key Findings on the basis of Primary Data**

Based on the data collated from academicians, business / financial analyst, entrepreneur, stock broker, researcher and others that comprises of investors, and after classifying the responses into four important yardsticks, i.e. age, educational qualification, gender, occupation and experience there were noteworthy observations. It is to be noted that the reason for considering the mentioned yardsticks to analyse the responses was that these factors exert a strong influence in forming views / opinion on various critical aspects that were captured in the questionnaire (please see 5.5: Questionnaire for Primary Data Collection, Chapter 5).

i) ***Age***: For most of the questions asked to respondents on the basis of their age, it was observed that for most of the questions there existed consistency in the views / opinions. For instance, for the queries pertaining to the impact of Global Financial Meltdown on the listings of initial public offers (IPOs) issued by Banks and NBFCs (Non-Banking Finance Companies) in the stock exchanges, listing rules of IPO in Indian stock exchanges have whether acted as a catalyst or affected the listing of IPOs of companies, particularly of Banking and Non-Banking Financial Companies, IPO issued by the banks and Non-Banking Finance Companies of India operating under both public and private during the period 2000-2015 and its positive impact in bolstering their Return on Assets and Return on Equity and conduciveness of current Indian economic scenario for IPO issue by banks and NBFCs.

ii) ***Educational Qualification*****:** It is interesting to observe that the responses provided by various respondents on the basis of their educational qualification have shown consensus contrary to the responses provided under the yardstick of age, wherein, a significant difference of views / opinions was observed for majority of questions.

Thus, irrespective of the educational qualification, on various critical questions, like, rating the quantum of IPO issue of banks and NBFCs during the period 2000-2015, impact of Global Financial Meltdown on the listing of initial public offers (IPOs) of banks and NBFCs, listing rules of Indian stock exchanges acting as a catalyst in listing of IPOs of companies, especially those of banks / NBFCs etc. an uniformity in the thinking process can be observed.

iii) ***Gender***: Observing the responses of the respondents, gender-wise, it can be seen that in majority of the questions, the gender has no impact on the opinions formed by the respondents. Whether it is male or female, as far as IPO related queries of Indian banks / NBFCs are concerned they all have a consensus approach.

iv) ***Occupation***: Occupation wise too, the majority of the respondents have expressed almost similar views / opinions on most of the questions. For instance, the queries focusing upon rating the quantum of IPO issue by banks and NBFCs during the period 2000-2015, impact of Global Financial Meltdown on listing of initial public offers (IPOs) of both banks and NBFCs in stock exchanges, conduciveness of Indian economic scenario for IPO issue by banks and NBFC etc. there is a consent among the respondents. For very few questions, a difference of views / opinions can be observed and one of such question is soaring Non-Performing Assets (NPA) and its n debilitating impact on the IPO issue of both public and private sector banks.

v) ***Experience***: Just like the case of the gender parameter, in this case too, there exist no significant difference in the views / opinions of the respondents based their professional experience. Thus, whether a person has less or more employment / professional experience, it has no influence or impact on their decisions pertaining to the queries relating to IPO issue of banks and NBFCs in India.

By applying the univariate statistical tool of mean and standard deviation on the nine critical queries, it can be observed that the standard deviation is almost similar in case of the queries relating to existence of a positive correlation between initial public offer (IPO) issues (value wise) of the banks and Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors on their Reported Net Profit after Tax (PAT), impact of Global Economic Crisis on listing of IPOs of Banks and NBFCs on stock exchanges and impact of listing rules of Indian stock exchanges on listing of IPOs of companies, especially of banking and Non-Banking Financial Companies.

On the other hand, the standard deviations seem to have uniformity in case of queries focusing on the impact of IPO issue by banks and Non-Banking Finance Companies (NBFCs) of India operating under both public and private sectors on their financial performance with reference to Return on Assets (ROA) and Return on Equity (ROE), conduciveness of current economic scenario for IPO issue by banks and NBFCs and soaring Non-Performing Assets (NPAs) debilitating impact on the IPO issue of both public and private sector banks.

2. Key Findings on the basis of Secondary Data

i) A strong correlation ($r = 0.92$ and $r^2 = 0.85$) can be observed between value of initial public offer (IPO) issued by the banks of India operating under both public and private sectors, that have been taken into consideration for undertaking the research study and Reported Net Profit after Tax (PAT).

ii) A weak or negative correlation ($r= -0.09$ and $r^2 = 0.0081$) can be observed between value of initial public offer (IPO) issued by the banks of India operating under both public and private sectors, that have been taken into consideration for undertaking the research study and Non-Performing Assets (NPA) of those banks.

iii) As far as impact on initial public offer (IPO) issue (volume wise) of Indian banking industry during pre and post Global Financial Meltdown is concerned it is observed that there is no significant variation in the volume of initial public offers (IPOs) during pre and post Global Financial Meltdown.

iv) It can be observed that Global Economic Crisis exerted an impact on the initial public offer (IPO) issue of Banking sector with reference to other two crucial sectors of Indian economy, i.e. Cement & Construction and Engineering.

v) Regarding post initial public offer (IPO) issue performance with respect to Return on Assets (ROA) of banks of India operating under both public and private sectors, that have been taken into consideration for the research study, it can be observed that there is a significant variation in their Return on Assets (ROA) post initial public

offer (IPO) issue, thereby providing an indication that the post initial public offer (IPO) performance have been quite positive in terms of its impact on the Return on Assets of banks considered for the research study.

vi) Regarding post initial public offer(IPO) issue performance with respect to Return on Equity (ROE) of banks of India operating under both public and private sectors, that have been taken into consideration for the research study, it can be observed that there is a significant variation in their Return on Equity (ROE)post initial public offer (IPO) issue, thereby explaining that the post initial public offer (IPO) performance have been quite positive in terms of its impact on the Return on Equity of banks considered for the research study.

vii) Regarding post initial public offer(IPO) issue performance with respect to Return on Assets (ROA) of Non-Banking Finance Companies (NBFCs) operating under both public and private sectors, that have been taken into consideration for the research study, it can be observed that there is a significant variation in their Return on Assets (ROA) post initial public offer (IPO issue, thereby showing that the post initial public offer (IPO) performance have been quite positive in terms of its impact on the Return on Equity of Non-Banking Finance Companies (NBFCs) considered for the research study.

viii) Regarding post initial public offer (IPO) issue performance with respect to Return on Equity (ROE) of Non-Banking Finance Companies (NBFCs) operating under both public and private sectors, that have been taken into consideration for the research study, it can be observed that there is a significant variation in their Return on Equity (ROE) post initial public offer (IPO) issue, thereby indicating that the post initial public offer (IPO) performance have been quite optimistic in terms of its impact on the Return on Equity of Non-Banking Finance Companies (NBFCs) considered for the research study.

xi) In case of banking sector stocks, majority of public and private sector banks have generated positive returns, with HDFC registering an astonishing returns. It is essential to note that Yes Bank despite being the newest of all the banks considered for the study have shown an extraordinary performance as it has not only registered a positive Initial Return or Raw Return on stock, its returns have enhanced every year, i.e. in 2007 it was 203.45%, which increased to 481.25% in 2012. Stocks of ICICI Bank have not fared well as evident from its Initial Returns or Raw Returns on Stock: -72.3% in 2009, -39.41% in 2010, -27.77% in 2011, -44.08% in 2012, -27.10% in 2013 and -17.99% in 2014. However, on close observation one can find the silver lining that is, the negative returns have come down drastically. Another interesting point to note is that like HDFC Bank other private sector banks considered for the study have too displayed a commendable performance in terms of Initial Returns or Raw Returns on stock.

With reference to Market Adjusted Excess Return (MAER) of public and private sector banks, it may be observed that except Canara Bank and Bank of Baroda other

public sector banks have generated negative Market Adjusted Excess Return (MAER). Allahabad bank's have registered Market Adjusted Excess Return (MAER) negative returns in 2007, 2009, 2010, 2011 and 2012, i.e. -285%, -203%, -296%, -167%, and - 291% respectively. Similarly, Punjab National Bank also had a negative Market Adjusted Excess Return (MAER) in 2007, i.e. -171% which by 2012 improved quite a lot to -101%. Star performers in case of public sector banks have been Canara Bank and Bank of Baroda, as evident from their Market Adjusted Excess Return (MAER). Canara Bank's Market Adjusted Excess Return (MAER) in 2007 was 14% that increased substantially to 402% in 2012. In case of Bank of Baroda, the Market Adjusted Excess Return (MAER) in 2002 was 72% that reached a whopping 184% in 2006.

Discussing the case of private sector banks, HDFC Bank have fared extremely well in terms of Market Adjusted Excess Return (MAER). During 2006 to 2011 it has continuously registered a enormous Market Adjusted Excess Return (MAER), i.e. in 2006 it was 20210%, in 2007 it was 32739% and in 2010 it was 45492%. However, in 2011 it dipped to 7744% but still maintaining a positive Market Adjusted Excess Return (MAER). Yes Bank's performance have been also extraordinary as it may be observed that in 2010 its Market Adjusted Excess Return (MAER) was 96% which moved northwards and reached 345% in 2015.

Now taking the case of NBFCs, the Initial or Raw Return on Stock of selected NBFCs, it can be stated that Power Finance Corporation stocks are undervalued as it has generated positive returns whereas stocks of Infrastructure Development Finance Company, Rural Electricity Corporation, Muthoot Finance and Edelweiss Capital are overvalued, since they have generated negative returns. In case of Power Finance Corporation, the performance is quite encouraging, as Initial or Raw Return on Stock have enhanced substantially, i.e. from 120.31% in 2011 to 144.49% in 2015. A dour performance can be observed in the cases of three NBFCs, i.e. Infrastructure Development Finance Company (IDFC), Rural Electricity Corporation (REC) and Edelweiss Capital, as their Initial or Raw Return on stock have constantly registered negative returns.

Looking into the other yardstick, i.e. Market Adjusted Excess Return, it can be observed that Power Finance Corporation have fetched positive returns barring for 2014, where a negative return of -13.22% can be observed. The other four NBFCs, i.e. IDFC, REC, Muthoot Finance and Edelweiss Capital have generated negative returns. It is to be noted that the MAER of Edelweiss Capital is quite grim as it has generated extremely high negative returns, i.e. – 106.18% in 2011, -82.52% in 2012 and -79.09% in 2013. In case of Muthoot Finance, the situation seems to be improving, as its MAER have moved from negative to positive territory, i.e. -33.39% in 2012, -15.91% in 2013, 19.67% in 2014 and 35.42% in 2015. It is interesting to note that the journey of MAER of Muthoot Finance have been highly impressive, as substantial improvement can be observed in its MAER. A lot of volatility in the MAER of Rural Electrification Corporation can be observed, as in 2011, the MAER registered was

-28.87%, which was reduced to -27.69% in 2012, then again moving northwards substantially and entering the positive territory, i.e. 13.85% in 2013 and then finally moving downwards to -13.32% in 2015. Almost same scenario can be observed in the

case of Infrastructure Development Finance Company (IDFC). The MAER in 2011 was -22.14%, then MAER improved prodigiously in 2012, i.e. – 13.99%. However, the MAER dipped significantly in 2015 to -67.2%. With reference to Edelweiss Capital, it can be concluded that its MAER have improved remarkably, as in 2011 it registered a MAER of – 106.18% which improved to a great extent by 2014 i.e. – 31.86%.

With reference to the opportune years for IPO issue of public and private sector banks considered for the research study, the favourable years are- 2002, 2007, 2008 and 2013, since the standard deviation and Coefficient of Variation of Return on Assets is on the lower side, i.e. Standard Deviation and Coefficient of Variation for the above mentioned periods are as follows: 0.28 & 39.44%, 0.28 & 35%, 0.24 & 27.3% and 0.35 & 38.9% respectively. Similarly the opportune years for issue of IPO of selected NBFCs considered for the study can be 2008 and 2009 since the value of Standard Deviation and Coefficient of Variation are on the lower side, i.e. 0.65 & 29.4% and 0.62 & 25.43% respectively.

It is to be noted that there is a similarity between the impact of IPO issue on Return on Assets (ROA) and Return on Equity (ROE) of both banks and Non-Banking Finance Companies (NBFCs) operating under both public and private sectors, that have been considered for the research study, i.e. there is a significant variation in Return on Assets (ROA) and Return on Equity (ROE) of both banks and NBFCs post IPO issue.

6.2 Discussion

By observing the inferences drawn from the analysis of primary data, it can be stated that demographic factors considered for the research study, i.e. Age; Gender; Educational Qualification; Years of Experience and Occupation have exerted a significant impact on the responses pertaining to the nine critical queries (please refer Chapter 5 - Data Analysis and Interpretation).

It is to be noted that on the basis of age, a consensus on the views / opinions of the respondents can be observed pertaining to queries focusing on the following- Impact of Global Financial Meltdown on IPO listing of Banks and NBFCs in stock exchanges; Listing rules of stock exchanges acting as a catalyst in the listing of IPOs of companies, especially, of Banking and Non-Banking Finance Companies (NBFCs); IPO issue of both banks and Non-Banking Finance Companies (NBFCs) operating under both public and private sectors during the period 2000-2015 and its role in bolstering their financial performance in terms of Return on Assets and Equity and Conduciveness of current economic scenario for IPO issue by banks and NBFCs.

On the contrary, significant variation in the opinions of the respondents can be seen on the basis of age regarding the queries relating to quantum of IPO issued by banks and NBFCs during the period 2000-2015 and a positive correlation can be observed between initial public offer (value wise) issues of banks and NBFCs operating under both public and private sectors and their Reported Net Profit after Tax (PAT).

It is interesting to observe that an uniformity in views / opinions of the respondents can be observed on the basis of gender, educational qualification, experience and occupation pertaining to the query on quantum of IPO issued by banks and NBFCs during the period 2000-2015 and a positive correlation between IPO issues (value wise) of banks and NBFCs on their Reported Net Profit after Tax (PAT). Similarly on the basis of age, gender, educational qualification, experience and occupation an uniformity can be observed in case of the query pertaining to listing rules of Indian stock exchanges have whether acted as a catalyst or affected the listing of IPOs of companies, especially of banking and Non-Banking Financial Companies.

Further, a harmony can be observed in the views / opinions of the respondents on the basis of all the mentioned five demographic factors regarding the query on the conduciveness of current economic scenario for IPO issue by banks and NBFCs.

In case of other queries there have been mixed responses by the respondents on the basis of demographic factors considered for the research study. For instance, regarding the queries pertaining to whether IPO issue of banks and NBFCs during the period 2000-2015 have assisted them in bolstering their performance with reference to Return on Assets and Return on Equity, in this regard, on the basis of age, educational qualification, experience and occupation, most of the respondents have displayed consensus approach, i.e. there is no substantial variation in their opinions on the aforesaid query.

6.2A Comparison of performance of Initial or Raw Return and Market Adjusted Excess Return (MAER) of Public and Private sector banks and Non-Banking Finance Companies stocks

The following inferences are drawn by applying standard deviation and coefficient of variation on the Initial or Raw Return and Market Adjusted Excess Return (MAER) of public and private sector bank stocks selected for the research study.

On comparing the standard deviation of Initial Return or Raw Return on stocks and Market Adjusted Excess Return (MAER) of public and private sector banks that have been taken into consideration for the research study it may be opined that almost there is no substantial variation between the mentioned returns of the banks operating under both public and private sectors, except for one private sector bank, i.e. HDFC Bank whose standard deviation of Initial Return or Raw Return on stocks is 132.48, signifying extremely high variability in its Initial or Raw Return on stock.

Similarly, another private sector bank stock whose variability in Initial or Raw Return on Stock tends to be on the higher side is The South Indian Bank, the standard deviation of Initial Return or Raw Return on stock is 2.05.

Thus, it may be stated that barring HDFC Bank and The South Indian Bank to some extent, the variability in Initial Return or Raw Return and Market Adjusted Excess Return on stocks of both public and private sector banks that have been taken into consideration for the research study is not much.

Now going by the standard deviation values of public and private sector Non-Banking Finance Companies (NBFCs), i.e. Power Finance Corporation (PFC), Infrastructure Development Finance Company (IDFC) and Rural Electrification Corporation (REC) under public sector and Muthoot Finance and Edelweiss Capital under private, there is not much significant difference in the standard deviation of their Initial Return or Raw Return on Stock and Market Adjusted Excess Return, except the Edelweiss capital whose standard deviation of Initial Return or Raw Return on stocks is on the lower side, i.e. 0.08, implying that there is less variation in its Initial Return or Raw Return on stocks.

Thus, it can be opined that both public and private sector Non-Banking Finance Companies (NBFCs) considered for the research study are more or less on the same footing with reference to post IPO listing performance.

6.2B Linkage with the Literature Review

Going by the contents and analysis of the research study, it may be stated that there is a big similarity between the literature review regarding underpricing / overpricing of initial public offering (IPO) issue based upon the analysis conducted in the research study. The underpricing / overpricing of initial public offering (IPO) post listing have been explained in the research study with the help of Initial Return or Raw Return on stocks and Marked Adjusted Excess Return on stocks of both public and private sector banks and Non-Banking Finance Companies (NBFCs) selected for the research study.

Further, the impact of global financial meltdown has been also emphasized in the research study by observing the impact of global financial meltdown on the initial public offering (IPO) issue of Indian banking sector with reference to other two significant sectors of the Indian economy, i.e. Cement & Construction and Engineering. Also the initial public offering (IPO) issue of Indian banking industry pre and post global financial meltdown have been touched upon.

6.2C Outcome of Focused Group Discussion

The outcome of focused group discussion on three significant topics is as under:

i)Existence of strong correlation between IPO issues (value-wise) and Reported Net Profit after Tax (PAT) of public and private sector banks selected for the study (period considered: 2000-2015):

The bankers who participated in the focused group discussion gave the following reasons for strong correlation between IPO issues (value-wise) and Reported Net Profit after Tax (PAT) of both public and private sector banks considered for the study (period considered: 2000-2015):

i) IPO (Initial Public Offer) issued by both public and private sector banks considered for the study assisted them immensely in expanding their business operations by setting up new branches both in urban, semi-urban as well as rural areas.

ii) In enhancing lending capacity, resulting into high earnings from interest on loans.

iii) Assisted in enhancing growth of the banks, as IPO (Initial Public Offer) issue helped to raise funds, which in turn assisted banks in various ways, i.e. in setting up of new business; mergers and acquisitions; meet working capital requirements, in addressing the long-term financial requirements etc.

(ii)Impact of IPO issue on Return on Assets and Equity of both public and private sector banks and NBFCs considered for the study during the period 2000-2015

The banking experts gave the following views pertaining to the positive impact of IPO issue on Return on Assets and Return on Equity of banks of India operating under both public and private sectors, that have been taken into consideration for the research study during the period 2000-2015:

i) Since IPO (Initial Public Offering) issue assisted banks and NBFCs to generate funds, which they invested in both fixed and current assets in order to provide an impetus to their business operations, thereby, resulting into higher operational efficiency leading to a higher return on assets.

ii) Due to IPO (Initial Public Offering) issue the capital base of banks and NBFCs got enhanced, resulting into rise in their business activities in terms of establishing new branches, launch of new products, mergers and acquisitions, foraying into offshore markets etc. thereby, increasing their profits as well as return on equity.

(iii) Conduciveness of current Indian economic scenario for IPO issue by banks and NBFCs

The banking experts put forward the following reasons pertaining to the conduciveness of current economic scenario for IPO issue by bank and NBFCs in India:

i) India being one of the rapidly growing economy of the world and expected to reach pinnacle by becoming one of the top three economic powers of the globe over the next 10-15 years, augmented by its robust democratic set-up provide a favourable business climate to banks and NBFCs to raise capital by embracing IPO (Initial Public Offering) route.

ii) Government of India's decision to recapitalise banks to the amount of INR 2.11 trillion (US$ 32.9 billion) is expected to provide an impetus to the credit growth in the country. Thus, along with recapitalization plans, procurement of capital through IPO

(Initial Public Offering) issue will play a pivotal role in creating a broad capital base which in turn will assist Indian banking sector enhance the quantum of loans to various critical sectors of the economy.

iii) Supplementing point (ii), demand for loans / finance will increase not only from Indian companies but also from foreign companies as numerous foreign corporate houses are establishing their business units in India due to various government measures like, 'Make in India' and 'Digital India'.

iv) According to Boston Consulting Group (BCG) report, India is estimated to become the third biggest consumer economy as its consumption is expected to triple to US$ 4 trillion by 2025 due to shift in consumer behaviour and expenditure pattern. Thus, a huge demand for loans in order to meet the expenditure on various items (durable as well as non-durable goods) is expected. In light of this, IPO issue by banks and NBFCs will assist them immensely in meeting the soaring demand for credit in future.

v) India's securing the 100th rank in the World Banks Ease of Doing Business Report, 2018 from 130th rank in World Banks Ease of Doing Business Report, 2017 on account of sustainable business reforms is a metaphor of an economy growing at an astounding pace with potential to attain excellence in different spheres of economic activities. In view of this, IPO issue by banks and NBFCs will prove to be a financial blessing for them since they will be able to harness various business opportunities that is expected to be created due to better ranking by India in World Banks Ease of Doing Business Report, 2018.

Based on this research study, the following suggestions are proposed-

1) Banking sector being the backbone of an economy needs to be strengthened to maximum extent possible. In this regard, more the banks access the IPO route it will assist them prodigiously to build a robust capital base which in turn can be utilized for priority sector lending, thereby, stoking the economic development of India. Thus, endeavours should be made to allow or encourage other forms of banks, i.e. Regional Rural Banks, Cooperative Banks etc. may take up the initial public offer (IPO) route subject to legal / regulatory framework.

2) Other financial variables, i.e. Earnings before Interest, Tax, Depreciation and Amortisation (EBIDTA) / Net Operating Profit and Enterprise Value may also be considered for studying the post IPO performance of banks and Non-Banking Financial Companies.

3) In view of the substantial rise in the operations of banks and NBFCs in India, they may ponder over exploring offshore capital markets for raising capital with the help of American Depository Receipts (ADRs), Global Depository Receipts (GDRs) etc. It is essential to note that some of the banks operating under both public and private sectors have already embraced the foreign capital option but subject to extant laws / regulations, other banks and NBFCs may also consider to raise capital from foreign countries.

6.3 Conclusion

From the research study, it can be concluded that banks and Non-Banking Finance Companies in India have scope for further issue of initial public offer (IPO), as Indian capital market and current economic scenario provide a conducive environment for initial public offering (IPO). Further, looking into the growing demand for credit by industrial, agricultural and other priority as well as non-priority sectors of Indian economy, initial public offerings (IPOs) may play a critical role in meeting the capital requirements of banks and Non-Banking Finance Companies. Moreover, issue of initial public offer (IPO) / follow on public offer (FPO) / offer for sale (OFS) may play a crucial role in recapitalizing the banks that have lost substantial funds due to soaring non-performing assets (NPA).

It is heartening to note that issue of initial public offer (IPO) / follow on public offer (FPO) / offer for sale (OFS) by banking and Non-Banking Finance Companies have received overwhelming response as depicted by the Mean value, i.e. 2.18 on the query pertaining to the rating of quantum of initial public offering (IPO) issue by banks and Non-Banking Financial Companies during the period 2000-2015. Further, it is also important to note that there has been less variability in the initial public offer (IPO) / follow on public offer (FPO) / offer for sale (OFS) of banking and Non-Banking Finance Companies, as exhibited by a lower Standard Deviation, i.e. 0.88

Similarly based on the primary data analysis, the issue of initial public offering (IPO) value wise by banks and Non-Banking Finance Companies displays a strong correlation with their Reported Net Profit after Tax (PAT). This is evident from the Mean value of 1.26 and a lower Standard Deviation of 0.44.

The majority of respondents showing consensus on the fact that Global Economic Crisis had exerted a negative impact on the listing of initial public offer (IPO) of banks and Non-Banking Financial Companies (NBFCs) in the stock exchanges establishes the fact that Global Financial Crisis spread like a contagion and impacted the financial sector across the globe. The Mean value of 1.29 and Standard Deviation of 0.455 is a testimony to this fact.

As mentioned above, that India provides a congenial business ecosystem is proved by the findings of the primary data also. With reference to the query regarding whether listing rules have acted as a catalyst in the listing of initial public offer (IPO) of banking and Non-Banking Financial Companies, it can be observed that majority of respondents have accepted that listing rules have really acted as a catalyst in enhancing the listing of initial public offer (IPO) of banks and Non-Banking Financial Companies. The Mean value of 1.28 and Standard Deviation of 0.45 elucidates that listing rules of Indian stock exchanges have really provided an impetus towards listing of initial public offer (IPO) of banks and Non-Banking Financial Companies.

It is quite impressive to note that post initial public offer (IPO) performance have been positive. The issue of initial public offer (IPO) by banks and Non-Banking Finance Companies (NBFCs) operating under both public and private sectors have assisted them phenomenally in improving their significant financials, i.e. Return on Assets and Return on Equity. It is proved from the primary data analysis. For public sector banks, the Mean value is 3.74; for private sector banks it stood at 3.76 and for Non-Banking Finance Companies is 3.80 is a clear indication that the two significant financial variables, Return on Assets and Equity of both banks and Non-Banking Finance Companies (NBFCs) have performed well post initial public offer (IPO) issue.

Thus, it may be inferred from the primary as well as secondary data analysis on various dimensions, like, Reported Net Profit after Tax (PAT); Return on Assets and Equity post initial public offer (IPO); Listing rules of Indian stock exchanges have acted as a catalyst in listing of initial public offer (IPO); Conduciveness of current economic scenario for IPO issue by banks and NBFCs etc., that they have largely covered the objectives of the research study that focuses on three important elements, i.e., the trend of IPO investing / issue in India with an emphasis on banking and Non-Banking Finance companies; impact of global economic crisis on initial public offering (IPO) issue with special reference to Indian banking sector and performance of initial public offering (IPO) performance of banking and Non-Banking Finance Companies (NBFCs).

Thus it may be opined that whether in the way of parabolic trend equation; Karl Pearson's Coefficient of Correlation; Kruskal Wallis Test or H-Test and other statistical and financial tools applied on secondary data or primary data obtained through questionnaire and analysed, and from the key findings of the secondary and primary data have all focused on the objectives of the research study.

Thus, the key takeaways from the research study are:

i) India is all set to provide a favourable business climate, wherein banks and Non-Banking Financial Companies will thrive, as evident from the favourable response from the respondents on the conduciveness of current economic scenario for initial public offer (IPO) issue by banks and Non-Banking Finance Companies (NBFCs).

ii) Huge opportunities for both public and private sector banks and Non-Banking Finance Companies to espouse the initial public offering (IPO) / follow on offer (FPO) / offer for sale (OFS) path, as it may be observed from the positive response received on the primary data pertaining to catalytic role played by the listing rules of Indian stock exchanges in fostering listing of initial public offer (IPO) of companies, particularly, banking and Non-Banking Financial Companies (NBFCs). Thus, the conducive listing rules of Indian stock exchanges would definitely assist both public and private sector banks and Non-Banking Finance Companies (NBFCs) to embrace initial public offer (IPO) path.

iii) Issuance of initial public offering (IPO) / follow on public offer (FPO) / offer for sale (OFS) by banks and Non-Banking Finance Companies (NBFCs) operating under

both public and private sectors in near future will assist them in bolstering their key financials like, Return on Assets and Equity as well as Reported Net Profit after Tax, as evident from the optimistic response received from the respondents, wherein, they have opined that in case of both public and private sector banks and Non-Banking Finance Companies (NBFCs), there is a positive impact on the above mentioned crucial financial variables.

iv) The menace of non-performing assets (NPA) needs to be curbed by both public and private sector banks as raising of any quantum of capital may not assist them in expanding their operations and achieve business growth unless and until the critical issue of non-performing assets (NPA) is adequately addressed. In this regard, initial public offering (IPO) / follow on public offer (FPO) / offer for sale (OFS) issue may provide financial solace to a great extent as it will assist the banks in infusing capital. Similarly, NBFCs being on the expansion mode also need capital to finance their expansion and business operations. In this regard, initial public offerings (IPOs) may prove to be a messiah.

The rising toxic loans and fiascos of banks have made them to move away from direct lending to customers and instead they are lending to NBFCs who in turn are servicing corporate and retail customers. In view of this, NBFCs have to financially strengthen themselves in order to reach the last mile.

v) It is heartening to note that recently Non-Banking Finance Companies (NBFCs) there have been an expansion in initial public offer(IPO) financing business as substantial bids for initial public offerings (IPOs) have resulted to an enhanced demand for funds. The IPO market has revived demand for IPO loans from NBFCs

vi) Seeing to the optimistic Indian business scenario, the banks and Non-Banking Finance Companies may ponder over enhancing the quantum of loans to Micro Small and Medium Enterprises and Start-ups. The growing requirement for loans by the mentioned business organizations may be met by issuance of initial public offering (IPO) / follow on public offer (FPO) / offer for sale (Offer for Sale).

In nutshell it can be stated that today India being the most vivacious economies of the world is creating phenomenal business opportunities and banking and NBFCs have a larger role to play in financing the business growth.

6.4 Scope of Further Research Study

No research study is exhaustive, as there are numerous developments that continue to take place on an ongoing basis in the field wherein the research study has been conducted. In view of this, it may be stated that due to prodigious growth of banking and non-banking finance companies in India, it offers a big scope to delve deep into various significant developments that may happen due to the following important aspects:

i) By referring the recent report of India Brand Equity Foundation (IBEF) which states that the total amount of Initial Public Offerings enhanced to INR 84,357 crore (US$ 13,089 million) by the end of FY 2018. During the first quarter of FY 2018-19, up to June 2018 US$ 1.2 billion has been raised from 37 Initial Public Offerings (IPOs), thereby, providing a harbinger of robust opportunities for banking and non-banking finance companies to embrace the initial public offer (IPO) route.

ii) Soaring incomes is resulting into a hike in demand of various financial products, thereby, creating the demand for more branches, optimum financial services and higher reach, i.e. accessibility of financial products to almost every segment of the population. This would trigger both organic and inorganic growth of banks and non-banking finance companies, thereby, creating possibility of raising long-term finance through initial public offers (IPOs).

iii) Other major developments, like, financial inclusion initiatives of Reserve Bank of India; rising credit demand and investments in rural areas; approval for new banking licenses by the Government of India and India's remarkable rank of 77th position in World Bank's Ease of Doing Business Report 2019 among 190 countries are positive signs of robust business growth, wherein banking and non-banking finance companies will have a pivotal role to fuel this growth and so there is massive opportunity for banking and non-banking finance companies to go for initial public offers (IPOs).

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ANNEXURE-1

Questionnaire for Primary Data Collection

A) Computation of Standard Deviation and Coefficient of Correlation of Return on Assets for the selected banks.

Return on Assets – 2002

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	0.32	0.15
Andhra Bank	0.97	0.07
Canara Bank	1.029	0.10
Punjab National Bank	0.77	0.0036
United Bank of India	0.52	0.0361
Bank of Baroda	0.77	0.0036
ICICI Bank	0.26	0.20
Yes Bank	-	-
Development Credit Bank	0.78	0.0049
The South Indian Bank	0.95	0.058
	$\sum x = 6.369$	**$\sum(x- \bar{x})^2 = 0.6262$**

Mean ($\bar{x}$) = 0.71

Standard Deviation = 0.28

Coefficient of Variation = 39.44%

Return on Assets-2003

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	0.59	0.0324

Andhra Bank	1.99	1.4884
Canara Bank	1.24	0.2209
Punjab National Bank	0.98	0.0441
United Bank of India	1.05	0.0784
Bank of Baroda	1.01	0.0576
ICICI Bank	1.13	0.1296
Yes Bank	-	-
Development Credit Bank	-2.05	7.9524
The South Indian Bank	0.95	0.0324
	$\sum x = 6.89$	**$\sum(x- \bar{x})^2 = 10.0362$**

Mean ($\bar{x}$) = 0.77

Standard Deviation = 1.12

Coefficient of Variation = 145.45%

Return on Assets- 2004

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	1.03	0.0121
Andhra Bank	1.71	0.62
Canara Bank	1.34	0.1764
Punjab National Bank	1.08	0.0256
United Bank of India	-0.22	1.2996
Bank of Baroda	1.13	0.0441
ICICI Bank	1.30	0.1444
Yes Bank	-	-
Development Credit Bank	0.00	0.8464
The South Indian Bank	0.91	0.0001
	$\sum x = 8.28$	**$\sum(x- \bar{x})^2 = 3.1687$**

Mean ($\bar{x}$) = 0.92

Standard Deviation = 0.63

Coefficient of Variation = 68.5%

Return on Assets- 2005

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	1.23	0.66
Andhra Bank	1.58	1.35
Canara Bank	1.00	0.34
Punjab National Bank	1.11	0.48
United Bank of India	1.04	0.38
Bank of Baroda	0.71	0.084
ICICI Bank	1.19	0.59
Yes Bank	-0.29	0.50
Development Credit Bank	-3.49	15.23
The South Indian Bank	0.09	0.11
	$\sum x = 4.17$	**$\Sigma(x- \bar{x})^2 = 19.724$**

Mean ($\bar{x}$) = 0.42

Standard Deviation = 1.48

Coefficient of Variation = 352.38%

Return on Assets- 2006

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	1.29	0.55
Andhra Bank	1.19	0.41
Canara Bank	1.01	0.21
Punjab National Bank	0.99	0.19
United Bank of India	-0.22	0.59
Bank of Baroda	0.72	0.03
ICICI Bank	1.01	0.21
Yes Bank	1.32	0.59
Development Credit Bank	-2.27	7.95
The South Indian Bank	0.47	0.0064
	$\sum x = 5.51$	**$\Sigma(x- \bar{x})^2 = 10.7364$**

Mean ($\bar{x}$) = 0.55

Standard Deviation = 1.09

Coefficient of Variation = 198.18%

Return on Assets- 2007

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	1.11	0.096
Andhra Bank	1.13	0.11

Canara Bank	0.85	0.0025
Punjab National Bank	0.94	0.0196
United Bank of India	0.63	0.0289
Bank of Baroda	0.71	0.0081
ICICI Bank	0.90	0.01
Yes Bank	0.84	0.0016
Development Credit Bank	0.14	0.44
The South Indian Bank	0.76	0.0016
	$\Sigma x = 8.01$	**$\Sigma(x- \bar{x})^2 = 0.7183$**

Mean($\bar{x}$) = 0.80

Standard Deviation = 0.28

Coefficient of Variation = 35%

Return on Assets- 2008

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	1.19	0.096
Andhra Bank	1.01	0.0169
Canara Bank	0.86	0.0004
Punjab National Bank	1.02	0.0196
United Bank of	0.58	0.09

India		
Bank of Baroda	0.79	0.0081
ICICI Bank	1.03	0.0225
Yes Bank	1.17	0.0841
Development Credit Bank	0.44	0.1936
The South Indian Bank	0.88	0.00
	Σ **x** = **8.97**	$\Sigma(x - \bar{x})^2$ = **0.5312**

Mean ($\bar{x}$) = 0.88

Standard Deviation = 0.24

Coefficient of Variation = 27.3%

Return on Assets- 2009

Banks	**X**	$(x - \bar{x})^2$
Allahabad Bank	0.80	0.0121
Andhra Bank	0.95	0.0676
Canara Bank	0.94	0.0625
Punjab National Bank	1.25	0.3136
United Bank of India	0.29	0.16

Bank of Baroda	0.97	0.0784
ICICI Bank	0.99	0.30
Yes Bank	1.32	0.3969
Development Credit Bank	-1.48	4.71
The South Indian Bank	0.95	0.0676
	$\Sigma x = 6.98$	**$\Sigma(x- \bar{x})^2 = 6.1687$**

Mean ($\bar{x}$) = 0.69

Standard Deviation = 0.83

Coefficient of Variation = 120.3%

Return on Assets- 2010

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	1.00	0.0324
Andhra Bank	1.15	0.1089
Canara Bank	1.14	0.1024
Punjab National Bank	1.31	0.2401
United Bank of India	0.41	0.1681
Bank of Baroda	1.09	0.0729
ICICI Bank	1.10	0.0784
Yes Bank	1.31	0.2401
Development	-1.27	4.37

Credit Bank		
The South Indian Bank	0.91	0.0081
	$\Sigma x = 8.15$	**$\Sigma(x- \bar{x})^2 = 5.4214$**

Mean ($\bar{x}$) = 0.82

Standard Deviation = 0.78

Coefficient of Variation = 95.12%

Return on Assets- 2011

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	0.95	0.0059
Andhra Bank	0.00	0.7621
Canara Bank	1.19	0.10
Punjab National Bank	1.17	0.088
United Bank of India	0.58	0.085
Bank of Baroda	1.18	0.094
ICICI Bank	1.26	0.149
Yes Bank	1.23	0.1274
Development Credit Bank	0.28	0.3516

The South Indian Bank	0.89	0.000289
	$\sum x = 8.73$	**$\sum(x- \bar{x})^2 = 1.763289$**

Mean ($\bar{x}$) = 0.873

Standard Deviation = 0.44

Coefficient of Variation = 50.4%

Return on Assets- 2012

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	1.02	0.0148
Andhra Bank	0.00	0.81
Canara Bank	0.87	0.000784
Punjab National Bank	1.06	0.0262
United Bank of India	0.62	0.0772
Bank of Baroda	1.11	0.0449
ICICI Bank	1.36	0.213
Yes Bank	1.32	0.178
Development Credit Bank	0.63	0.0718
The South Indian Bank	0.99	0.0084

	$\sum$ **x = 8.98**	$\sum(x- \bar{x})^2$ **= 1.445084**

Mean ($\bar{x}$) = 0.898

Standard Deviation = 0.40

Coefficient of Variation = 44.54%

Return on Assets- 2013

Banks	**X**	$(x- \bar{x})^2$
Allahabad Bank	0.57	0.11
Andhra Bank	0.88	0.0004
Canara Bank	0.69	0.0441
Punjab National Bank	0.99	0.0081
United Bank of India	0.34	0.3136
Bank of Baroda	0.81	0.0081
ICICI Bank	1.55	0.4225
Yes Bank	1.31	0.1681
Development Credit Bank	0.90	0
The South Indian Bank	1.00	0.01

	$\sum x = 9.04$	**$\sum(x- \bar{x})^2 = 1.0849$**

Mean ($\bar{x}$) = 0.90

Standard Deviation = 0.35

Coefficient of Variation = 38.9%

Return on Assets -2014

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	0.53	0.0225
Andhra Bank	0.26	0.1764
Canara Bank	0.49	0.0361
Punjab National Bank	0.60	0.0064
United Bank of India	-0.96	2.69
Bank of Baroda	0.68	0
ICICI Bank	1.64	0.9216
Yes Bank	1.48	0.64
Development Credit Bank	1.17	0.2401
The South Indian Bank	0.92	0.0576
	$\sum x = 6.81$	**$\sum(x- \bar{x})^2 =$**

		4.7907

Mean ($\bar{x}$) = 0.68

Standard Deviation = 0.73

Coefficient of Variation = 107.35%

Return on Assets -2015

Banks	**X**	**$(x- \bar{x})^2$**
Allahabad Bank	0.27	0.2025
Andhra Bank	0.34	0.1444
Canara Bank	0.49	0.0529
Punjab National Bank	0.50	0.0484
United Bank of India	0.20	0.2704
Bank of Baroda	0.47	0.0625
ICICI Bank	1.72	1
Yes Bank	1.47	0.5625
Development Credit Bank	1.18	0.2116
The South Indian Bank	0.51	0.0441
	$\sum x$ = 7.15	**$\sum(x- \bar{x})^2$ = 2.5993**

Mean ($\bar{x}$) = 0.72

Standard Deviation = 0.54

Coefficient of Variation = 75%

B) Standard Deviation and Co-efficient of Variation of Return on Assets of Non-Banking Finance Companies (NBFCs) selected for the research study-

Return on Assets - 2007

NBFCs	**X**	**$(x - \bar{x})^2$**
Power Finance Corporation	2.27	0.27
Infrastructure Development Finance Company	2.60	0.034
Rural Electricity Corporation	1.93	0.732
Muthoot Finance	2.84	0.0029
Edelweiss Capital	4.29	2.26
	$\Sigma x = 13.93$	**$\Sigma(x - \bar{x})^2 = 3.2989$**

Mean ($\bar{x}$) = 2.786

Standard Deviation = 0.91

Coefficient of Variation = 32.7%

Return on Assets-2008

NBFCs	**X**	**$(x - \bar{x})^2$**
Power Finance Corporation	2.36	0.022
I22nfrastructure Development Finance Company	2.41	0.039
Rural Electricity Corporation	2.17	0.0018
Muthoot Finance	2.95	0.544
Edelweiss Capital	1.17	1.085
	$\sum x = 11.06$	**$\sum(x - \bar{x})^2 = 1.6918$**

Mean ($\bar{x}$) = 2.212

Standard Deviation = 0.65

Coefficient of Variation = 29.4%

Return on Assets- 2009

NBFCs	**X**	**$(x - \bar{x})^2$**
Power Finance Corporation	3.05	0.37
Infrastructure Development Finance Company	2.48	0.00176
Rural Electricity	2.49	0.0027

Corporation		
Muthoot Finance	2.76	0.103
Edelweiss Capital	1.41	1.057
	$\sum x = 12.19$	**$\sum(x - \bar{x})^2 = 1.534$**

Mean ($\bar{x}$) = 2.438

Standard Deviation = 0.62

Coefficient of Variation = 25.43%

Return on Assets- 2010

NBFCs	**X**	**$(x - \bar{x})^2$**
Power Finance Corporation	2.91	0.01
Infrastructure Development Finance Company	3.04	0.0529
Rural Electricity Corporation	2.99	0.18
Muthoot Finance	3.88	1.14
Edelweiss Capital	1.24	2.46
	$\sum x = 14.06$	**$\sum(x - \bar{x})^2 = 3.8429$**

Mean ($\bar{x}$) = 2.81

Standard Deviation = 0.98

Coefficient of Variation = 34.8%

Return on Assets – 2011

NBFCs	**X**	**$(x - \bar{x})^2$**
Power Finance Corporation	2.60	0.1369
Infrastructure Development Finance Company	3.23	0.0676
Rural Electricity Corporation	3.46	0.2401
Muthoot Finance	4.39	2.02
Edelweiss Capital	1.21	3.097
	$\sum x = 14.89$	**$\sum(x - \bar{x})^2 = 5.5616$**

Mean ($\bar{x}$) = 2.97

Standard Deviation = 1.18

Coefficient of Variation = 39.73%

Q1. ***You are in the age group of***

20-30

31-40

41-50

51-60

60 & Above

Q2. ***Gender***

Male

Female

Q3***. Please specify your occupation***

Academician

Business / Financial Analyst

Entrepreneur

Stock Broker

Researcher

Others (Please Specify_____)

Q4. ***Your Educational Qualification***

Undergraduate (Please specify_____)

Post Graduate (Please specify _____)

Professional Qualification (Please specify_____)

Ph.D

Q5. ***Years of experience in employment / profession / entrepreneurship / others***

0-5 Years

5-10 Years

10-15 Years

15-20 Years

20-25 Years

Above 25 Years

Q6. ***As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?***

Fair (0-10)

Good (10-20)

Very Good (20-30)

Excellent (Above 30)

Poor (Nil)

Q7***. Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).***

Yes

No

Q8. ***According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges***

Yes

No

Q9. According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Yes

No

Q10. ***In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?***

Strongly Agree

Strongly disagree

Agree

Disagree

Neither Agree nor Disagree

Q11. ***Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity***?

Strongly Agree

Strongly disagree

Agree

Disagree

Neither Agree nor Disagree

Q12. ***Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?***

Strongly Agree

Strongly disagree

Agree

Disagree

Neither Agree nor Disagree

Q13. ***Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?***

Strongly agree

Strongly disagree

Agree

Disagree

Neither Agree nor Disagree

Q14. ***Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?***

Strongly Agree

Strongly disagree

Agree

Disagree

Neither Agree nor Disagree

Q15. ***According to you which factor is creating an impediment in the growth of Indian capital market? You may select more than one option***

Convenience of raising capital from foreign capital market

Listing Process of IPO

Stringent Regulatory Environment

Non-conducive business environment

Global Economic Environment

Role of Management in determining IPO issue

```
ONEWAY Age Gender EduQualExp Occupation BY quantamissue
  /MISSING ANALYSIS.
```

Oneway

Notes

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ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	12.342	4	3.085	2.451	.047
	Within Groups	315.998	251	1.259		
	Total	328.340	255			
Gender	Between Groups	.534	4	.134	.589	.671

	Within Groups	56.900	251	.227		
	Total	57.434	255			
Educational Qualification	Between Groups	.666	4	.167	.259	.904
	Within Groups	161.271	251	.643		
	Total	161.938	255			
Years of Experience	Between Groups	14.083	4	3.521	1.963	.101
	Within Groups	450.152	251	1.793		
	Total	464.234	255			
Occupation	Between Groups	3.159	4	.790	.352	.842
	Within Groups	563.118	251	2.243		
	Total	566.277	255			

```
ONEWAY Age Gender EduQualExp Occupation BY correlationwithpat
  /MISSING ANALYSIS.
```

Oneway

Notes

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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
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[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	5.423	1	5.423	4.282	.040
	Within Groups	322.920	255	1.266		
	Total	328.342	256			
Gender	Between Groups	.274	1	.274	1.218	.271
	Within Groups	57.275	255	.225		
	Total	57.549	256			
Educational Qualification	Between Groups	1.736	1	1.736	2.762	.098

	Within Groups	160.272	255	.629		
	Total	162.008	256			
Years of Experience	Between Groups	15.788	1	15.788	8.977	.003
	Within Groups	448.484	255	1.759		
	Total	464.272	256			
Occupation	Between Groups	2.396	1	2.396	1.083	.299
	Within Groups	564.055	255	2.212		
	Total	566.451	256			

```
ONEWAY Age Gender EduQualExp Occupation BY crisiseffect
  /MISSING ANALYSIS.
```

Oneway

Notes

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Syntax		Statistics for each analysis are based on cases with no missing data for any variable in the analysis. ONEWAY Age Gender EduQualExp Occupation BY crisiseffect /MISSING ANALYSIS.	
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ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	.001	1	.001	.001	.980
	Within Groups	328.342	255	1.288		
	Total	328.342	256			
Gender	Between Groups	.049	1	.049	.217	.642
	Within Groups	57.500	255	.225		
	Total	57.549	256			
Educational Qualification	Between Groups	.025	1	.025	.040	.842
	Within Groups	161.983	255	.635		
	Total	162.008	256			

	Between Groups	.037	1	.037	.021	.886
Years of Experience	Within Groups	464.235	255	1.821		
	Total	464.272	256			
	Between Groups	10.642	1	10.642	4.882	.028
Occupation	Within Groups	555.810	255	2.180		
	Total	566.451	256			

```
ONEWAY Age Gender EduQualExp Occupation BY listingrulecatlst
  /MISSING ANALYSIS.
```

Oneway

Notes

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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.

Syntax		ONEWAY Age Gender EduQualExp Occupation BY listingrulecatlst /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.03
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[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	.780	1	.780	.607	.437
	Within Groups	327.562	255	1.285		
	Total	328.342	256			
Gender	Between Groups	.008	1	.008	.034	.855
	Within Groups	57.541	255	.226		
	Total	57.549	256			
Educational Qualification	Between Groups	.180	1	.180	.283	.595
	Within Groups	161.828	255	.635		
	Total	162.008	256			
Years of Experience	Between Groups	.696	1	.696	.383	.537
	Within Groups	463.576	255	1.818		

	Total	464.272	256			
Occupation	Between Groups	.952	1	.952	.429	.513
	Within Groups	565.500	255	2.218		
	Total	566.451	256			

```
ONEWAY Age Gender EduQualExp Occupation BY factor1
  /MISSING ANALYSIS.
```

Oneway

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Age Gender EduQualExp Occupation BY factor1 /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.00

Elapsed Time	00:00:00.06

[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	10.151	4	2.538	2.005	.094
	Within Groups	316.375	250	1.265		
	Total	326.525	254			
Gender	Between Groups	2.291	4	.573	2.617	.036
	Within Groups	54.705	250	.219		
	Total	56.996	254			
Educational Qualification	Between Groups	4.525	4	1.131	1.832	.123
	Within Groups	154.393	250	.618		
	Total	158.918	254			
Years of Experience	Between Groups	19.968	4	4.992	2.827	.025

	Within Groups	441.429	250	1.766		
	Total	461.396	254			
Occupation	Between Groups	22.971	4	5.743	2.661	.033
	Within Groups	539.437	250	2.158		
	Total	562.408	254			

```
ONEWAY Age Gender EduQualExp Occupation BY factor2
  /MISSING ANALYSIS.
```

Oneway

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Age Gender EduQualExp Occupation BY factor2 /MISSING ANALYSIS.

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[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	3.796	4	.949	.737	.568
	Within Groups	324.547	252	1.288		
	Total	328.342	256			
Gender	Between Groups	2.743	4	.686	3.153	.015
	Within Groups	54.806	252	.217		
	Total	57.549	256			
Educational Qualification	Between Groups	3.114	4	.779	1.235	.297
	Within Groups	158.894	252	.631		
	Total	162.008	256			
Years of Experience	Between Groups	12.174	4	3.043	1.696	.151
	Within Groups	452.099	252	1.794		

	Total	464.272	256			
Occupation	Between Groups	12.019	4	3.005	1.366	.246
	Within Groups	554.432	252	2.200		
	Total	566.451	256			

```
ONEWAY Age Gender EduQualExp Occupation BY factor3
  /MISSING ANALYSIS.
```

Oneway

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Age Gender EduQualExp Occupation BY factor3 /MISSING ANALYSIS.
Resources	Processor Time	00:00:00.02

Elapsed Time	00:00:00.09

[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	10.374	4	2.594	2.047	.088
	Within Groups	317.966	251	1.267		
	Total	328.340	255			
Gender	Between Groups	2.626	4	.656	3.024	.018
	Within Groups	54.484	251	.217		
	Total	57.109	255			
Educational Qualification	Between Groups	4.037	4	1.009	1.609	.172
	Within Groups	157.428	251	.627		
	Total	161.465	255			
Years of Experience	Between Groups	20.397	4	5.099	2.888	.023

	Within Groups	443.224	251	1.766		
	Total	463.621	255			
Occupation	Between Groups	9.220	4	2.305	1.042	.386
	Within Groups	555.218	251	2.212		
	Total	564.438	255			

```
ONEWAY Age Gender EduQualExp Occupation BY factor4
  /MISSING ANALYSIS.
```

Oneway

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Age Gender EduQualExp Occupation BY factor4 /MISSING ANALYSIS.

Resources	Processor Time	00:00:00.02
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[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	4.389	4	1.097	.854	.492
	Within Groups	323.953	252	1.286		
	Total	328.342	256			
Gender	Between Groups	.167	4	.042	.184	.947
	Within Groups	57.381	252	.228		
	Total	57.549	256			
Educational Qualification	Between Groups	4.563	4	1.141	1.826	.124
	Within Groups	157.445	252	.625		
	Total	162.008	256			
Years of Experience	Between Groups	8.993	4	2.248	1.244	.293

	Within Groups	455.279	252	1.807		
	Total	464.272	256			
Occupation	Between Groups	8.156	4	2.039	.920	.453
	Within Groups	558.296	252	2.215		
	Total	566.451	256			

```
ONEWAY Age Gender EduQualExp Occupation BY factor5
  /MISSING ANALYSIS.
```

Oneway

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Age Gender EduQualExp Occupation BY factor5 /MISSING ANALYSIS.

Resources	Processor Time	00:00:00.02
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[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age of the respondent	Between Groups	15.848	4	3.962	3.195	.014
	Within Groups	312.494	252	1.240		
	Total	328.342	256			
Gender	Between Groups	.612	4	.153	.677	.609
	Within Groups	56.937	252	.226		
	Total	57.549	256			
Educational Qualification	Between Groups	4.056	4	1.014	1.618	.170
	Within Groups	157.952	252	.627		
	Total	162.008	256			
Years of Experience	Between Groups	28.005	4	7.001	4.044	.003
	Within Groups	436.268	252	1.731		

	Total	464.272	256			
Occupation	Between Groups	17.865	4	4.466	2.052	.088
	Within Groups	548.586	252	2.177		
	Total	566.451	256			

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CROSSTABS
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quantamissuecorrelationwithpatcrisiseffectlistingrulecatlst factor1 factor2 factor3 factor4
factor5
  /FORMAT=NOTABLES
  /STATISTICS=CHISQ CORR
  /COUNT ROUND CELL
  /BARCHART.
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Crosstabs

Notes

Output Created		17-SEP-2018 15:21:23
Comments		
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	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	275
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.

Syntax	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table. CROSSTABS /TABLES=Age Gender EduQualExp Occupation BY quantamissuecorrelationwith patcrisiseffectlistingrulecatlst factor1 factor2 factor3 factor4 factor5 /FORMAT=NOTABLES /STATISTICS=CHISQ CORR /COUNT ROUND CELL /BARCHART.
Resources	Processor Time	00:00:12.64
	Elapsed Time	00:00:16.08
	Dimensions Requested	2
	Cells Available	174762

[DataSet1] C:\Users\user\Desktop\Akinchan B.Sinha\data file1.sav

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Age of the respondent * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?	256	93.1%	19	6.9%	275	100.0%
Age of the respondent * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).	257	93.5%	18	6.5%	275	100.0%
Age of the respondent * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges	257	93.5%	18	6.5%	275	100.0%
Age of the respondent * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?	257	93.5%	18	6.5%	275	100.0%

Age of the respondent * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?	255	92.7%	20	7.3%	275	100.0%
Age of the respondent * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?	257	93.5%	18	6.5%	275	100.0%
Age of the respondent * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?	256	93.1%	19	6.9%	275	100.0%
Age of the respondent * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?	257	93.5%	18	6.5%	275	100.0%
Age of the respondent * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?	257	93.5%	18	6.5%	275	100.0%
Gender * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?	256	93.1%	19	6.9%	275	100.0%

Gender * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).	257	93.5%	18	6.5%	275	100.0%
Gender * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges	257	93.5%	18	6.5%	275	100.0%
Gender * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?	257	93.5%	18	6.5%	275	100.0%
Gender * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?	255	92.7%	20	7.3%	275	100.0%
Gender * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?	257	93.5%	18	6.5%	275	100.0%
Gender * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?	256	93.1%	19	6.9%	275	100.0%

Gender * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?	257	93.5%	18	6.5%	275	100.0%
Gender * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?	257	93.5%	18	6.5%	275	100.0%
Educational Qualification * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?	256	93.1%	19	6.9%	275	100.0%
Educational Qualification * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).	257	93.5%	18	6.5%	275	100.0%
Educational Qualification * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges	257	93.5%	18	6.5%	275	100.0%
Educational Qualification * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?	257	93.5%	18	6.5%	275	100.0%

Educational Qualification * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?	255	92.7%	20	7.3%	275	100.0%
Educational Qualification * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?	257	93.5%	18	6.5%	275	100.0%
Educational Qualification * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?	256	93.1%	19	6.9%	275	100.0%
Educational Qualification * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?	257	93.5%	18	6.5%	275	100.0%
Educational Qualification * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?	257	93.5%	18	6.5%	275	100.0%
Years of Experience * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?	256	93.1%	19	6.9%	275	100.0%

Years of Experience * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).	257	93.5%	18	6.5%	275	100.0%
Years of Experience * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges	257	93.5%	18	6.5%	275	100.0%
Years of Experience * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?	257	93.5%	18	6.5%	275	100.0%
Years of Experience * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?	255	92.7%	20	7.3%	275	100.0%
Years of Experience * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?	257	93.5%	18	6.5%	275	100.0%

Years of Experience * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?	256	93.1%	19	6.9%	275	100.0%
Years of Experience * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?	257	93.5%	18	6.5%	275	100.0%
Years of Experience * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?	257	93.5%	18	6.5%	275	100.0%
Occupation * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?	256	93.1%	19	6.9%	275	100.0%
Occupation * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).	257	93.5%	18	6.5%	275	100.0%
Occupation * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges	257	93.5%	18	6.5%	275	100.0%
Occupation * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?	257	93.5%	18	6.5%	275	100.0%

Occupation * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?	255	92.7%	20	7.3%	275	100.0%
Occupation * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?	257	93.5%	18	6.5%	275	100.0%
Occupation * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?	256	93.1%	19	6.9%	275	100.0%
Occupation * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?	257	93.5%	18	6.5%	275	100.0%
Occupation * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?	257	93.5%	18	6.5%	275	100.0%

Age of the respondent * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.930[a]	16	.010
Likelihood Ratio	28.703	16	.026
Linear-by-Linear Association	4.066	1	.044
N of Valid Cases	256		

a. 13 cells (52.0%) have expected count less than 5. The minimum expected count is .20.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.126	.067	2.029	.044[c]
Ordinal by Ordinal	Spearman Correlation	.088	.065	1.401	.162[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.011[a]	4	.198
Likelihood Ratio	5.917	4	.205
Linear-by-Linear Association	4.228	1	.040
N of Valid Cases	257		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.39.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.129	.064	2.069	.040[c]
Ordinal by Ordinal	Spearman Correlation	.141	.062	2.275	.024[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.985[a]	4	.739
Likelihood Ratio	1.960	4	.743
Linear-by-Linear Association	.001	1	.980
N of Valid Cases	257		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.79.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.002	.060	-.025	.980[c]
Ordinal by Ordinal	Spearman Correlation	.023	.061	.368	.713[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.158[a]	4	.532
Likelihood Ratio	3.229	4	.520
Linear-by-Linear Association	.608	1	.436
N of Valid Cases	257		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.64.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.049	.061	-.779	.437[c]
Ordinal by Ordinal	Spearman Correlation	-.053	.062	-.846	.398[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.023[a]	16	.451
Likelihood Ratio	19.519	16	.243
Linear-by-Linear Association	.060	1	.807
N of Valid Cases	255		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .71.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.015	.058	.244	.807[c]

Ordinal by Ordinal	Spearman Correlation	.004	.063	.066	.947[c]
N of Valid Cases		255			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.943[a]	16	.813
Likelihood Ratio	12.555	16	.705
Linear-by-Linear Association	.098	1	.754
N of Valid Cases	257		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .76.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.020	.057	.313	.754[c]
Ordinal by Ordinal	Spearman Correlation	-.002	.062	-.031	.975[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.488[a]	16	.244
Likelihood Ratio	20.552	16	.196
Linear-by-Linear Association	1.524	1	.217
N of Valid Cases	256		

a. 13 cells (52.0%) have expected count less than 5. The minimum expected count is .61.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.077	.062	-1.236	.218[c]
Ordinal by Ordinal	Spearman Correlation	-.041	.063	-.661	.509[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.819[a]	16	.876
Likelihood Ratio	12.128	16	.735
Linear-by-Linear Association	.051	1	.822
N of Valid Cases	257		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .61.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.014	.062	-.225	.822[c]
Ordinal by Ordinal	Spearman Correlation	-.015	.062	-.236	.814[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Age of the respondent * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.070[a]	16	.031
Likelihood Ratio	33.400	16	.007
Linear-by-Linear Association	.403	1	.526
N of Valid Cases	257		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .76.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.040	.071	.634	.527[c]
Ordinal by Ordinal	Spearman Correlation	.132	.064	2.125	.035[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.380[a]	4	.666
Likelihood Ratio	2.555	4	.635
Linear-by-Linear Association	.883	1	.347
N of Valid Cases	256		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.36.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.059	.060	-.940	.348[c]
Ordinal by Ordinal	Spearman Correlation	-.047	.062	-.747	.456[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.222[a]	1	.269		
Continuity Correction[b]	.912	1	.340		

Likelihood Ratio	1.246	1	.264		
Fisher's Exact Test				.296	.170
Linear-by-Linear Association	1.217	1	.270		
N of Valid Cases	257				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 22.68.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.069	.060	-1.104	.271[c]
Ordinal by Ordinal	Spearman Correlation	-.069	.060	-1.104	.271[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.218[a]	1	.640		
Continuity Correction[b]	.104	1	.747		
Likelihood Ratio	.217	1	.641		
Fisher's Exact Test				.665	.372

Linear-by-Linear Association	.217	1	.641		
N of Valid Cases	257				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 25.39.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.029	.063	.465	.642[c]
Ordinal by Ordinal	Spearman Correlation	.029	.063	.465	.642[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.034[a]	1	.854		
Continuity Correction[b]	.001	1	.970		
Likelihood Ratio	.034	1	.854		
Fisher's Exact Test				.884	.482
Linear-by-Linear Association	.034	1	.854		
N of Valid Cases	257				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 24.37.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.011	.063	.183	.855[c]
Ordinal by Ordinal	Spearman Correlation	.011	.063	.183	.855[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.249[a]	4	.036
Likelihood Ratio	10.805	4	.029
Linear-by-Linear Association	.411	1	.521
N of Valid Cases	255		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 4.72.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.040	.058	.641	.522[c]
Ordinal by Ordinal	Spearman Correlation	-.015	.059	-.242	.809[c]
N of Valid Cases		255			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.248[a]	4	.016
Likelihood Ratio	12.680	4	.013
Linear-by-Linear Association	2.341	1	.126
N of Valid Cases	257		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.08.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.096	.064	-1.534	.126[c]
Ordinal by Ordinal	Spearman Correlation	-.095	.062	-1.527	.128[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.770[a]	4	.019
Likelihood Ratio	11.973	4	.018
Linear-by-Linear Association	.432	1	.511
N of Valid Cases	256		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 4.03.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.041	.056	.656	.512[c]
Ordinal by Ordinal	Spearman Correlation	-.020	.060	-.324	.746[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.747[a]	4	.945
Likelihood Ratio	.774	4	.942
Linear-by-Linear Association	.154	1	.695
N of Valid Cases	257		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 4.06.

Symmetric Measures

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.

Interval by Interval	Pearson's R	.025	.061	.392	.695[c]
Ordinal by Ordinal	Spearman Correlation	.016	.062	.260	.795[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Gender * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.732[a]	4	.604
Likelihood Ratio	2.788	4	.594
Linear-by-Linear Association	.655	1	.418
N of Valid Cases	257		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.08.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.051	.062	-.809	.419[c]
Ordinal by Ordinal	Spearman Correlation	-.072	.061	-1.149	.252[c]

N of Valid Cases	257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.608[a]	12	.736
Likelihood Ratio	10.272	12	.592
Linear-by-Linear Association	.130	1	.719
N of Valid Cases	256		

a. 9 cells (45.0%) have expected count less than 5. The minimum expected count is .33.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.023	.054	.359	.720[c]
Ordinal by Ordinal	Spearman Correlation	.035	.058	.559	.577[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.316[a]	3	.040
Likelihood Ratio	8.182	3	.042
Linear-by-Linear Association	2.743	1	.098
N of Valid Cases	257		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.47.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.104	.066	1.662	.098[c]
Ordinal by Ordinal	Spearman Correlation	.112	.066	1.805	.072[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.581[a]	3	.664
Likelihood Ratio	1.532	3	.675
Linear-by-Linear Association	.040	1	.842
N of Valid Cases	257		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.13.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.012	.065	.199	.842[c]
Ordinal by Ordinal	Spearman Correlation	.004	.065	.057	.955[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.604[a]	3	.457
Likelihood Ratio	2.630	3	.452
Linear-by-Linear Association	.284	1	.594
N of Valid Cases	257		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.88.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.033	.059	-.532	.595[c]
Ordinal by Ordinal	Spearman Correlation	-.036	.060	-.571	.568[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.660[a]	12	.009
Likelihood Ratio	26.178	12	.010
Linear-by-Linear Association	1.155	1	.283
N of Valid Cases	255		

a. 9 cells (45.0%) have expected count less than 5. The minimum expected count is 1.10.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.067	.063	-1.075	.283[c]
Ordinal by Ordinal	Spearman Correlation	-.115	.067	-1.847	.066[c]
N of Valid Cases		255			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	17.241[a]	12	.141
Likelihood Ratio	16.646	12	.163
Linear-by-Linear Association	3.226	1	.072
N of Valid Cases	257		

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is 1.23.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.112	.061	-1.804	.072[c]
Ordinal by Ordinal	Spearman Correlation	-.108	.066	-1.740	.083[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.570[a]	12	.401
Likelihood Ratio	13.980	12	.302

Linear-by-Linear Association	4.714	1	.030
N of Valid Cases	256		

a. 9 cells (45.0%) have expected count less than 5. The minimum expected count is .98.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.136	.066	-2.187	.030[c]
Ordinal by Ordinal	Spearman Correlation	-.113	.064	-1.819	.070[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.848[a]	12	.311
Likelihood Ratio	15.523	12	.214

Linear-by-Linear Association	5.106	1	.024
N of Valid Cases	257		

a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .98.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.141	.059	-2.278	.024[c]
Ordinal by Ordinal	Spearman Correlation	-.135	.061	-2.179	.030[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Educational Qualification * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.216[a]	12	.142
Likelihood Ratio	16.378	12	.175
Linear-by-Linear Association	2.321	1	.128
N of Valid Cases	257		

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is 1.23.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.095	.064	1.527	.128[c]
Ordinal by Ordinal	Spearman Correlation	.119	.067	1.921	.056[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.372[a]	16	.016
Likelihood Ratio	27.045	16	.041
Linear-by-Linear Association	3.229	1	.072
N of Valid Cases	256		

a. 11 cells (44.0%) have expected count less than 5. The minimum expected count is .17.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.113	.062	1.805	.072[c]
Ordinal by Ordinal	Spearman Correlation	.120	.063	1.921	.056[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.652[a]	4	.047
Likelihood Ratio	9.193	4	.056
Linear-by-Linear Association	8.706	1	.003
N of Valid Cases	257		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 2.87.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.184	.065	2.996	.003[c]
Ordinal by Ordinal	Spearman Correlation	.176	.063	2.858	.005[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.954[a]	4	.041
Likelihood Ratio	9.566	4	.048
Linear-by-Linear Association	.021	1	.886
N of Valid Cases	257		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 3.21.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.009	.063	.143	.886[c]
Ordinal by Ordinal	Spearman Correlation	.011	.062	.183	.855[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.111[a]	4	.893
Likelihood Ratio	1.162	4	.884
Linear-by-Linear Association	.384	1	.535
N of Valid Cases	257		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 3.08.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.039	.061	-.619	.537[c]
Ordinal by Ordinal	Spearman Correlation	-.039	.062	-.617	.538[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.680[a]	16	.035
Likelihood Ratio	31.038	16	.013
Linear-by-Linear Association	.208	1	.648
N of Valid Cases	255		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .60.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.

Interval by Interval	Pearson's R	-.029	.061	-.456	.649[c]
Ordinal by Ordinal	Spearman Correlation	-.036	.064	-.580	.562[c]
N of Valid Cases		255			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.903[a]	16	.330
Likelihood Ratio	20.391	16	.203
Linear-by-Linear Association	.006	1	.941
N of Valid Cases	257		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .64.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.005	.060	-.074	.941[c]
Ordinal by Ordinal	Spearman Correlation	.011	.061	.175	.861[c]

N of Valid Cases	257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.526[a]	16	.005
Likelihood Ratio	35.770	16	.003
Linear-by-Linear Association	1.500	1	.221
N of Valid Cases	256		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .52.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.077	.063	-1.226	.221[c]
Ordinal by Ordinal	Spearman Correlation	-.030	.062	-.470	.638[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.061[a]	16	.053
Likelihood Ratio	24.722	16	.075
Linear-by-Linear Association	.049	1	.824
N of Valid Cases	257		

a. 11 cells (44.0%) have expected count less than 5. The minimum expected count is .51.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.014	.062	-.222	.825[c]
Ordinal by Ordinal	Spearman Correlation	.014	.062	.229	.819[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Years of Experience * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.798[a]	16	.094
Likelihood Ratio	29.617	16	.020
Linear-by-Linear Association	2.768	1	.096
N of Valid Cases	257		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .64.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.104	.061	1.670	.096[c]
Ordinal by Ordinal	Spearman Correlation	.161	.062	2.609	.010[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * As far as IPO issue of Banking and NBFCs are concerned during the period 2000-2015 how would you rate them in terms of quantum of issues?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.235[a]	20	.638
Likelihood Ratio	18.791	20	.535
Linear-by-Linear Association	.283	1	.595
N of Valid Cases	256		

a. 19 cells (63.3%) have expected count less than 5. The minimum expected count is .09.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.033	.058	.532	.596[c]
Ordinal by Ordinal	Spearman Correlation	.034	.062	.543	.588[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * Do you agree with the statement that IPO issues (value wise) of Banks and NBFCs hold a positive and high correlation with their Reported Net Profit After Tax (PAT).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.086[a]	5	.073
Likelihood Ratio	10.302	5	.067
Linear-by-Linear Association	1.083	1	.298
N of Valid Cases	257		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 1.56.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.065	.065	-1.041	.299[c]
Ordinal by Ordinal	Spearman Correlation	-.103	.065	-1.658	.099[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * According to you did Global Economic Crisis impacted the IPO listing of Banks and NBFCs in the stock exchanges

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	7.920[a]	5	.161
Likelihood Ratio	7.752	5	.170
Linear-by-Linear Association	4.809	1	.028
N of Valid Cases	257		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 1.75.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.137	.062	2.210	.028[c]
Ordinal by Ordinal	Spearman Correlation	.141	.061	2.273	.024[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * According to you did listing rules of Indian stock exchanges have acted as a catalyst or affected the listing of IPOs of companies, especially Banking and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.814[a]	5	.167
Likelihood Ratio	8.062	5	.153

Linear-by-Linear Association	.430	1	.512
N of Valid Cases	257		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 1.68.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.041	.060	.655	.513[c]
Ordinal by Ordinal	Spearman Correlation	.068	.060	1.084	.279[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * In your opinion did IPO issue of public sector banks during 2000-2015 have assisted them in bolstering their performance in terms of Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.735[a]	20	.000
Likelihood Ratio	48.794	20	.000
Linear-by-Linear Association	2.388	1	.122

N of Valid Cases	255		

a. 16 cells (53.3%) have expected count less than 5. The minimum expected count is .33.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.097	.067	-1.550	.123[c]
Ordinal by Ordinal	Spearman Correlation	-.068	.067	-1.076	.283[c]
N of Valid Cases		255			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * Do you agree with the statement that IPO issued by private sector banks during the period 2000-2015 have assisted them in improving their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.992[a]	20	.341
Likelihood Ratio	23.476	20	.266
Linear-by-Linear Association	3.962	1	.047
N of Valid Cases	257		

a. 18 cells (60.0%) have expected count less than 5. The minimum expected count is .35.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.124	.064	-2.002	.046[c]
Ordinal by Ordinal	Spearman Correlation	-.119	.063	-1.916	.056[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * Did IPO issued by NBFCs during the period 2000-2015 exerted a positive impact on their Return on Assets and Equity?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.569[a]	20	.364
Likelihood Ratio	22.944	20	.292
Linear-by-Linear Association	.992	1	.319
N of Valid Cases	256		

a. 19 cells (63.3%) have expected count less than 5. The minimum expected count is .28.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.062	.063	-.996	.320[c]
Ordinal by Ordinal	Spearman Correlation	-.068	.064	-1.084	.280[c]
N of Valid Cases		256			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * Do you agree that current economic scenario is conducive for IPO issue by banks and NBFCs?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.421[a]	20	.432
Likelihood Ratio	21.436	20	.372
Linear-by-Linear Association	1.125	1	.289
N of Valid Cases	257		

a. 17 cells (56.7%) have expected count less than 5. The minimum expected count is .28.

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	-.066	.062	-1.061	.290[c]
Ordinal by Ordinal	Spearman Correlation	-.083	.064	-1.332	.184[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

Occupation * Do soaring Non-performing assets have a debilitating impact on the IPO issue of banks (public as well as private)?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.857[a]	20	.001
Likelihood Ratio	52.334	20	.000
Linear-by-Linear Association	1.658	1	.198
N of Valid Cases	257		

a. 16 cells (53.3%) have expected count less than 5. The minimum expected count is .35.

Symmetric Measures

	Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.

Interval by Interval	Pearson's R	-.080	.063	-1.289	.199[c]
Ordinal by Ordinal	Spearman Correlation	-.126	.066	-2.021	.044[c]
N of Valid Cases		257			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

ANNEXURE-II

Details of Research Publication

S.No	Name of the Ph. D. Scholar	Topic	Journal/Seminar/ Conference	Place in case of Seminar/Conference	Month /Yr
01	AkinchanBuddhodev Sinha Dr.Manisha Singh Dr.Balmukund Singh	Growth and Development of Venture Capital Financing in India with a Special Emphasis on Selected Sectors	National Finance Seminar. The paper was published in an ISBN Book	Siva Sivani Institute of Management, Hyderabad, Telangana, India	November, 2016
02	AkinchanBuddhodev Sinha Dr.Manisha Singh Dr.B.M.Singh	E-Voting- A Resurgence in Corporate Democracy	Dimensions Journal	IBS Business School, Mumbai	February, 2017
03	AkinchanBuddhodev Sinha Dr.Manisha Singh Dr.B.M.Singh	Non-Banking Financial Institutions of India- Their Onset, Growth and Performance of Selected NBFCs	Brahmaputra Journal	Don Bosco Institute of Management Studies, Guwahati	February, 2017
04	AkinchanBuddhodev Sinha Dr.B.M.Singh Dr.Manisha Singh	Gauging the Conduciveness for IPO Issues in Indian Capital Market	Journal- NCRD's Business Review	NCRD's Sterling Institute of Management Studies, Nerul, Navi Mumbai	March 2018

International Conference

S.No	Name of the Ph. D. Scholar	Topic	Conference	Place in case of Seminar/Conference	Month /Yr
01	AkinchanBuddhodev Sinha Dr.B.M.Singh Dr.Manisha Singh	India's IPO Listing Scenario and Post Listing IPO Performan	Three days International Conference and Project Exhibition on "ICT for Organizational Effectiveness	Navi-Mumbai, Maharashtra, India	March 14^{th}-16^{th}, 2019

		ce with a Special Emphasis on Banking and Non-Banking Financial Companies			

ANNEXURE-2

GLOSSARY

F

Follow-on-Public Offer

A follow-on public offer (FPO) is the issuance of shares to investors by a public company that is currently listed on a stock market exchange. An FPO is a stock issue of additional shares made by a company that is already publicly listed and has gone through the IPO process.

G

Globalization

It describes the way countries and people of the world interact and integrate. Many things have become globalized as people come into contact. Economic globalization is how countries are coming together as one big global economy, making international trade easier.

I

Initial Public Offer

The process of offering shares in a private corporation to the public for the first time is called an initial public offering (IPO). Growing companies that need capital will frequently use IPOs to raise money, while more established firms may use an IPO to allow the owners to exit some or all their ownership by selling shares to the public. In an initial public offering, the issuer, or company raising capital, brings in underwriting firms or investment banks to help determine the best type of security to issue, offering price, amount of shares and time frame for the market offering.

L

Liberalization

Liberalization refers to laws or rules being liberalized, or relaxed, by a government. ... While liberal is used to refer to more than just politics—you can have liberal parents––liberalization is used only -when speaking of economic or social policies or other government regulations.

N

Non-Banking Finance Companies (NBFCs)

A Non-Banking Financial Company (NBFC) is a company registered under the Companies Act, 1956 engaged in the business of loans and advances, acquisition of shares / stocks / bonds / debentures / securities issued by Government or local authority or other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business but does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/purchase/construction of immovable property. A non-banking institution which is a company and has principal business of receiving deposits under any scheme or arrangement in one lump sum or in instalments by way of contributions or in any other manner, is also a non-banking financial company (Residuary non-banking company).

O

Offer for Sale

Offer for Sale" means an offer of securities by existing members to the general public for subscription through an offer document. It extends to all securities. Even the existing members of a listed company can offer securities to the general public through an offer document.

P

Public Sector Banks

Public Sector Banks (PSBs) are a major type of bank in India, where a majority stake (i.e. more than 50%) is held by a government. The shares of these banks are listed on stock exchanges.

Private Sector Banks

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

R

Recapitalization of Banks

Recapitalisations of Banks mean adding fresh equity into them. As the owner of PSU Banks govt can provide capital to these Banks, as any owner to expand business. Infusion of additional capital by govt. to PSBs is the "Recapitalization".

T

Tier-I and Tier- II Capital

Under the Basel Accord, a bank's capital consists of Tier-I capital and Tier-II capital, and the two types of capital are different. Tier-I capital is a bank's core capital, whereas Tier-II capital is a bank's supplementary capital. A bank's total capital is calculated by adding its Tier-I and Tier-II capital together. Regulators use the capital ratio to determine and rank a bank's capital adequacy.

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