KEY-FINANCIALS, NON-FINANCIAL DISCLOSURE AND PUBLIC OFFERING VALUATIONS: WITH SPECIAL REFERENCE TO INDIAN SME SECURITIES

Thesis Submitted for the Award of the Degree of

DOCTOR OF PHILOSOPHY

In

Management

By

Vishal Goyal

Registration Number: 41400719

Supervised By

Dr. Babli Dhiman (13532)

Department of Finance (Professor)

Mittal School of Business, Lovely Professional University

LOVELY PROFESSIONAL UNIVERSITY, PUNJAB

2024

DECLARATION

I, Vishal Goyal, (Reg. No 41400719), student of Doctor of Philosophy in management from Lovely Professional University declares that the research thesis entitled "Key-financials, Non-financial Disclosure and Public Offering Valuations: With special reference to Indian SME securities" submitted to my university, is an authentic work and has been done by me under the supervision of Dr. Babli Dhiman, Professor, Mittal School of Business, Lovely Professional University by obeying the norms and guidelines given in the Ethical Code of Conduct of the university. Any part of this research or entire research work has not been submitted to any other institute or university by any other research scholar. Material used (data, theoretical analysis, and text) from the other sources have been cited in the thesis by giving their details in the references.

Vishal Goyal

Reg. No. 41400719

Ph.D (Management)

Lovely Professional University

Phagwara, Punjab.

Date:

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Vishal Goyal (Reg. No. 41400719) has accomplished his research work contained in the thesis entitled "Key-financials, Non-financial Disclosure and Public Offering Valuations: With special reference to Indian SME securities" under my supervision and guidance. This entire thesis which is being submitted for the award of Doctor of Philosophy in management from Lovely Professional University is an authentic research work carried out by him.

Dr. Babli Dhiman

Professor (Finance)

Mittal School of Business

Lovely Professional University

Phagwara, Punjab

Date:

ACKNOWLEDGEMENT

Carrying out research is challenging but a learning journey experience. During this process of research a lot of dedication, patience and most importantly wisdom are required which would help in the personality and intellectual development of an individual. I sincerely express my gratitude to my all social assets who always guided and motivated me to complete this journey of enlightenment and intellectual development.

Firstly, I would like to thank from the core of heart to my teacher, guide and supervisor Dr. Babli Dhiman, Professor, Mittal School of Business, Lovely Professional University who always channelizes and stimulate my learning through her directions and counseling. She always supported and taught like mother. Her support and guidance in the completion of this project journey is immeasurable.

I am very advantageous to have wonderful family members my parents, my wife and special gratification to my uncle Dr. Krishan Chand who always maneuvered my negativity into positivity in a constructive way to accomplish this one of the important assignment of my life.

At last I have short of words to express my feelings of gratitude towards my elders, friends and colleagues from my university who always boosted my morale and made me emotionally strong to accept the uncertainties encountered by me during this reinvigorating phase of my life.

Vishal Goyal

Date:

ABSTRACT

SMEs play significant role in the country's socio economic growth. SMEs generally have capital requirements for the expansion and growth through capital expenditures. The capital requirements of SMEs are fulfilled by various channels and alternatives of debt and equity. Indian SMEs are allowed to raise the capital through public offerings of securities and these SMEs have specifically designated platforms like BSE SME and NSE EMERGE to list their securities which are offered to public. Firms who are going to be public and already public have to disclose their financial and non-financial information through different types of disclosures as per Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations. SMEs public offerings primary and secondary capital market investors might have the requirement of some valuation model through which valuations of public offerings could be done with the help of key-financial and non-financial information.

Therefore this study is an attempt to identify the various factors from key-financial information and non-financial disclosures for SME public offerings valuation. This research also provides the valuation models for pre listing and post listing of SMEs public offerings along with examining the role of Indian SME stock exchanges in the performance SMEs public offerings for short run and long as well as the comparison of SMEs stocks performance with SME stock market performance. Chapter 1 of this research thesis discusses about the Indian SMEs and their listing along with scenario SMEs stocks trading on Indian SME stock exchanges. Chapter 2 throws light on review of literature related to identification of key-financials and non-financial disclosures. Chapter 3 is dedicated to research methodology which will be specify need, objectives, research design, period of study, data collection, constructs of the study and quantitative techniques used to carry out this study. Chapter 4 explores the relationship and effect of key financials and non-financial information on subscription of small medium enterprises (SMEs) public offerings. Chapter 5 analyzes the relationship and effect of key financials and non-financial information on issue price of small medium enterprises (SMEs) public offerings. Chapter 6 studies the relationship and effect of key financials and non-financial information on listing day performance of small medium enterprises (SMEs) public offerings. Chapter 7 inspects the relationship and effect of key financials and non-financial information on post listing performance of small medium enterprises (SMEs) public offerings. Chapter 8 investigates the

comparison and relationship of short run and long run SMEs public offerings performance with the market performance.

Secondary data is used to analyze the performance of Indian SMEs IPOs under this study. Data related to key-financials and non-financial disclosures are taken from SMEs IPOs draft red herring prospectus DRHP and red-herring prospectus RHPs. Data of SMEs stock prices, issue prices, offer prices and market indices are collected from BSE SME websites and NSE emerge websites according to the SMEs listing on their respective stock exchanges. Data of SMEs public offerings subscriptions are taken from basis of allotment documents SMEs IPOs.

Based on secondary data analysis objective wise conclusions are given below.

The first objective of the study is related to explore the relationship and effect of key financials and non-financial information on subscription of small medium enterprises (SMEs) public offerings. The analysis of this objective concludes that Key-financials and non-financial disclosures may be used to predict the subscriptions of SMEs public offerings significantly up to some extent for upcoming SME IPOs. The variables Stock Exchange, Prior Market Returns, IB Total Listings and Firm Age belong to non-financial disclosures and the variable Return on Capital Employed belongs to key-financials would be mainly used to predict the SMEs IPOs subscriptions related to investors other that market makers.

The second objective of the study is dedicated to analyze the relationship and effect of key financials and non-financial information on issue price of small medium enterprises (SMEs) public offerings. The analysis of this objective culminates that Key-financials and non-financial disclosures may be used to estimate the value of issue price of SMEs public offerings significantly up to great and significant extent for upcoming SME IPOs. The variables Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Non-Retail Investors %age Allocation and IB Success Rate belong to non-financial disclosures and the variables Long Term Debt-Equity Ratio, Interest Cover Ratio and PBDTM (%) belong to key-financials would be mainly used to do the valuations of SMEs IPOs issue and offer prices which would be helpful in better decision making for SME firms as capital raisers and investors as capital providers from Indian capital market.

The third objective of the study contributes in studying the relationship and effect of key financials and non-financial information on listing day performance of small medium enterprises (SMEs) public offerings. The analysis of this objective arrives that Key-financials and non-financial disclosures may be used to assess the value of listing day opening and closing prices of SMEs public offerings significantly up to great and significant extent for upcoming SME IPOs. The variables Overall Subscription, Company Type, Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Offer Price and IB Success Rate belong to non-financial disclosures and the no variable belong to key-financials would be mainly used to do the valuations of SMEs IPOs listing day prices which would be helpful in better decision making and valuations for SMEs stock investors in the secondary market.

The Fourth objective of the study inspects the relationship and effect of key financials and non-financial information on post listing performance of small medium enterprises (SMEs) public offerings. The analysis of this objective infers that Key-financials and non-financial disclosures may be used to assess the value of post listing closing prices of SMEs public offerings up to great and significant extent for upcoming SME IPOs. These non-financial disclosures and key-financials would be mainly used to do the valuations of SMEs IPOs post listing prices after one month, three months, six months, nine months and one year which would be helpful in better decision making and valuations for SMEs stock investors in the secondary market. As the time gap from the listing day increase the determination capacity of valuation models for post listing prices come down this concludes that in the long run updated key-financials and non-financial disclosures information might be useful for better determination of post listing share prices for SMEs stock which have already listed for more than nine months on SME stock exchanges.

The fifth objective of the study investigates the comparison and relationship of short run and long run SMEs public offerings performance with the market performance. The analysis of this objective reveals that SME IPOs Listing day returns are comparatively greater than SME stock market returns and gap between IPOs listing day returns and market returns has narrowed down over the years. Raw returns of SME IPOs were higher than SME stock exchanges indices returns in the short run and SME IPOs returns were lower than SME stock exchanges indices returns in the long run. It is suggested that if investor has higher risk appetite and want to generate higher returns in the short run the investor should go for SME IPOs and if investor want to generate

higher returns with medium level of risk appetite the investor must invest in SME stock exchange indices. SME stock market may better determine the SME IPOs performance in the long run and SME stock market movement could impact the performance of SME stocks in the long run. Mean returns of SME IPOs can be significantly different from mean returns of SME stock market in the short run and long run except for the returns of six months, nine months and one year time periods

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

SMEs	Small and Medium Enterprises
IPOs	Initial Public Offers
ANOVA	Analysis of Variance
VIF	Variance Inflation Factor
MAER	Market Adjusted Excess Return
WRI	Wealth Relative Index
BSE	Bombay Stock Exchange
NSE	National Stock Exchange
RHP	Red Herring Prospectus
DHRP	Draft Red Herring Prospectus
HNIs	High Net-Worth Individuals
SEBI	Securities and Exchange Board of India
ICDR	Issue of Capital and Disclosure Requirements
QIBs	Qualified Institutional Buyers
QIP	Qualified Institutional Placement
ITP	Institutional Trading Platform
IRDA	Insurance Regulatory and Development Authority
RTAs	Registrar and Transfer Agents
ROC	Registrars of Companies
RONW	Return on Net Worth
CPM	Cash Profit Margin
PBIDTM	Profit before Interest, Depreciation and Tax Margin
PBITM	Profit Before Interest and Tax Margin
PBDTM	Profit Before Depreciation and Tax Margin
ROCE	Return on Capital Employed
APATM	Adjusted Profit After Tax Margin
CAPM	Capital Asset Pricing Model
NSDL	National Securities Depository Limited
CDSL	Central Depository Services Ltd
EBDT	Earnings Before Depreciation and Deferred Taxes
BIFR	Board for Industrial and Financial Reconstruction

CHAPTER 1

INTRODUCTION

1.1 About Indian SMEs

SMEs are playing very important role in economic development and growth of our country. As it is known that SMEs act as subcontractors or suppliers of materials and are major components of demand for intermediate goods and services of large enterprises. In developing like India SMEs contribute in emeployement generation, sustainable growth and trade. The total GDP contribution of MSMEs was around 30% in 2019-20 (Central Statistics Office, Ministry of Statistics & PI).

In accordance with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two Classes:

1. **Manufacturing Enterprises: -** Enterprises engaged in the manufacture or production of goods belonging to the industries listed in Schedule I of the Industries (Development and Regulation) Act 1951, or plants and plants in the process of adding value to finished products using a unique name like mechanical properties and how to use them. A manufacturing company is defined in terms of investments in plants and machinery.

2. **Service Enterprises: -** A company that provides or provides services is defined on the basis of capital expenditure.

The limit for investment in plant and machinery / equipment as per old definition of MSMEs belong to manufacturing and service sectors from Ministry of Micro, Small and Medium Enterprises, Govt. of is given below.

Manufacturing Sector	
Enterprises	**Investment in plant & machinery**

Micro Enterprises	Does not exceed twenty five lakh rupees
Small Enterprises	More than twenty five lakh rupees but does not exceed five crore rupees
Medium Enterprises	More than five crore rupees but does not exceed ten crore rupees
Service Sector	
Enterprises	**Investment in equipments**
Micro Enterprises	Does not exceed ten lakh rupees:
Small Enterprises	More than ten lakh rupees but does not exceed two crore rupees
Medium Enterprises	More than two crore rupees but does not exceed five core rupees

Revised definition and classification of MSMEs as per new definition of MSMEs from Ministry of Micro, Small and Medium Enterprises, Govt. of India applicable w.e.f 1st July 2020 is given as:

- Micro enterprises with investment in factory and machinery not exceeding INR 1 Crore and turnover not exceeding INR 5 Crore.
- Small enterprises with investment in factory and machinery or equipment not exceeding INR 10 Crore and turnover not exceeding INR 50 Crore.
- Medium-sized enterprises with investment in factory and machinery or equipment not exceeding INR 50 Crore and turnover not exceeding INR 250 Crore.

The share of funds provided through the capital markets for small and medium enterprises (SMEs) is currently very low. Equities are crucial to growth, and the development of the small IPO market encourages investment in small and medium-sized enterprises and, together with securitization and other non-bank debt, facilitates greater risk-sharing and risk-taking, thereby driving growth.

1.2 International Scenario of SME Exchange

Of the 192 recognized countries in the world, 149 have official stock exchanges. And of these countries, about 57 have alternative markets for SMEs to raise capital. The main reason alternative markets work is that tighter financial rules and regulations make small businesses ineligible to list on official stock exchanges. Investor profiles are also different for him on the two exchanges. While the primary exchanges attract investors from all walks of life, alternative exchanges are aimed at more educated investors who are aware of the risks involved in investing in start-ups and growth companies. These institutions and exchanges make it easier for small businesses and new entrepreneurs to access capital markets as a source of funding. These alternative markets work with varying degrees of success and efficiency. Most small business exchanges are now part of larger organizations such as the New York Stock Exchange, Euronext, National Association of Securities Dealers Automated Quote (NASDAQ) OMX, and the London Stock Exchange.

Main International SME Exchanges/Boards:

1. MOTHERS, Japan,
2. The Alternative Investment Market (AIM) in the United Kingdom,
3. KOSDAQ in the Republic of Korea,
4. TSX – Venture Exchange (TSX-V) in Canada,
5. MESDAQ Malaysia
6. NASDAQ in the USA

1.3 SME Stock Exchanges

SMEs contribute towards 33% of manufactured output during the period from 2014-15 to 2018-19 (*MSMEs annual report 2020-21*) and MSMEs account for around 40% of all exports from India, accounting for roughly 6.11% of the GDP from manufacturing and 24.63% from the services sector (*Public Information Bureau, Govt. of India*) . But it has to deal with the financial issue, which is becoming to be a barrier to their expansion. Indian SMEs must contend with international players, and they want inexpensive funding.

Recognizing the economic role of SMEs and their funding challenges, governments and private organizations have developed strategies to improve SMEs' access to finance. Initiatives such as the launch of dedicated capital markets segments such as the Bombay Stock Exchange Small and Medium Enterprises (BSESME) and National Stock Exchange Emerge (NSE Emerge) platforms to enable Indian SMEs to access equity financing are being undertaken.

The BSE SME Exchange was introduced by BSE on March 12, 2012 as a platform for small and medium-sized entrepreneurs to raise equity finance for their future development and expansion. Till date 416 companies are listed, among these, 163 companies are migrated into main board therefore; total 253 companies are eligible for trading. Market capitalization BSE SME listed companies is 61069.12 crore rupees (*https://www.bsesme.com*). BSE introduced the S&P BSE SME IPO index on December 14, 2012 to track the performance of SME IPOs in the secondary market. The index is determined through the utilization of the free float methodology. On the same lines NSE emerge is the equity finance platform for SME from national stock exchange. NSE emerge was launched by NSE in September 2012. Presently there are 247 companies listed on NSE emerge with market capitalization of INR 35375.15 Crore (*https://www1.nseindia.com/emerge*).

1.4 SME Public Offerings

A company first decides to go public to raise capital. We will conduct an initial public offering (IPO), which is the first public offering by a specific company. This is when a private company goes public for the first time, with a new issue of securities and/or an offer to sell existing securities. This paves the way for the listing and trading of the financial securities issued by corporate entities. Even after a company goes public, it may need to raise additional capital to support its growth. In this case, you can conduct a secondary offering to issue additional shares. Some companies had multiple secondary offerings to help expand their business. An IPO is when a company sells its common stock to the public for the first time. The company typically offers its shares primarily in this way, although secondary shares may also be sold in an IPO. Listing means that a company changes from private ownership to public ownership. IPO brings in money and brings many benefits to the company.

1.5 Types of Public Offerings

Various forms of financial securities are offered in the primary market. Multi-bid channels are available for each of these securities:

- **Initial Public Offer (IPO):** Where common shares are first issued to the public, it is referred to as the Initial Public Offer (IPO). The end result of an initial public offering is the listing of these shares on an exchange. Subsequently, the company's shares can be purchased and sold on the stock exchange.
- **Follow on Public Offer (FPO):** A follow-up offering is when a listed company offers shares to the public. A company may conduct just one IPO, yet can have several FPOs. FPO will also offer its shares to investors who are not currently involved in the company.
- **Offer for sale:** Investors in the public offering can receive new shares from the company, existing shares from current investors, or a combination of both. An existing investor selling part or all of its shares in a public offering is called a sale offer. Sale offer could be part of his IPO or FPO.
- **Rights issue:** A rights issue is when securities are issued to existing investors in proportion to their ownership interest in the company. The entitled shares given to each investor are called rights allocations. Subscription prices will be announced at the time of publication. Investors wishing to exercise their rights must pay a subscription price to purchase shares.
- **Bonus issue:** A bonus issue raises share capital and issues new shares, just like a rights issue does. The quantity of new shares issued for each share of the company owned by current investors is determined by the bonus ratio. In contrast to a rights issue, in a bonus issue the investor pays nothing for the new shares issued. The Company utilizes reserves to issue bonus shares.
- **Private placements:** A private placement involves selling securities directly to a limited number of investors (up to 49 investors can take part in a private placement). Private placements are the top choice for the majority of non-equity securities. In the initial phases of a company, shares are distributed through private placements. Listed corporations have the option to offer their shares privately to promoters, expatriates, business associates, and others. This is known as priority allocation. For founders, shares are blocked (i.e. cannot be sold) for 3 years from date of grant. However, in the case of a public offering by a SME using ITP Promoter's capital, ITP Promoter's capital will only

block him for 6 months, whereas in a normal his IPO, he will have a 3-year blocking period. Another form of private placement by a public company is Qualified Institutional Placement (QIP). SEBI recognizes the following as Qualified Institutional Buyers (QIBs):

- Public financial institutions within the meaning of Section 4A of the Companies Act 1956;
- Scheduled commercial banks;
- Mutual funds;
- Foreign institutional investor registered with SEBI;
- Multilateral and bilateral development financial institutions;
- Venture capital funds registered with SEBI;
- Foreign Venture capital investors registered with SEBI;
- State Industrial Development Corporations;
- Insurance Companies registered with the Insurance Regulatory and Development Authority (IRDA);
- Provident Funds with minimum corpus of Rs. 25 Crores;
- Pension Funds with minimum corpus of Rs. 25 Crores;

1.6 Participants of Public Offerings Process

Public offerings are covered by the Securities and Exchange Board of India regulations of Capital Issues and Capital Issues Disclosure Requirements 2009, a company appoints an investment banker (also known as a merchant banker) to assist her with the IPO process. The banker will collaborate with the company for a few months to prepare her IPO, and then finalize the IPO. Duties involve conducting thorough research on different disclosures in the prospectus. They will collaborate with his SEBI and manage all other aspects of this issue. Having a team of investment bankers as stock managers is particularly common for managing the issue of large amount of stocks. Issuance managers sign contracts that define the roles and responsibilities of each investment banker. One of them is a book-built security lead, also known as a book-running lead manager, where the issue price is set based on investor response. Others are co-leaders,

sometimes referred to as book running lead managers. In addition to investment bankers, other agents are also commissioned by the company. These are:

- **Syndicate members:** SEBI-registered brokers are assigned to obtain applications from investors for the IPO.
- **Sub syndicate members:** Members of the syndicate are tasked with obtaining bids from investors. The situation is not a straightforward one.
- **Underwriters:** Investment bankers, brokerage firms, and other underwriters registered with SEBI are chosen to guarantee the mobilization of the issuance amount. Every insurance provider specifies the extent of coverage it offers. If there are not enough applications from investors, then the applicants must cover the shortfall.
- **Legal adviser:** Attorneys advice on all legal aspects of the matter, ensure all legal requirements are met, and examine the prospectus in question.
- **Credit rating agency:** To evaluate an IPO. Independent and impartial evaluation of IPOs is a must.
- **Depository:** Dematerialize or dematerialize company shares. Companies that go public are obliged to provide a DEMAT function.
- **Registrar and transfer agent (RTA):** Processing investor applications and processing allocations and refunds; The Company, the Depository and the RTA enter into a tripartite agreement regarding their respective responsibilities. While the RTA is operating the allotment, the relevant shares must be cashed to the custodian, who must deposit the cashed shares into the investor's account (held by the Depository Participant).
- **Bankers to the issue:** To collect forms and related payment instruments.
- **Self-certified syndicate banks:** These are banks that offer the possibility of accepting applications supported with block amount (ASBA) support.

1.7 Pricing Methods of Public Offerings

- **Fixed Price Issue:** At the same time, the investor will know exactly what price the stock will be offered at the time of investment. Investors only list the number of shares in the application. If the number of applications for shares exceeds the number of shares to be issued, the criteria for allotment of shares will be determined in consultation with the

stock exchange. Accordingly, investors may be allocated all of the shares they request, some of the shares they request, or none of the shares they request.

- **Book Built Issue:** Here investors are aware of a price range of around Rs 100 to Rs 120 at the time of investment. The lower edge of the band is called the floor and the upper edge is called the ceiling. The upper limit cannot exceed 1.2 times his floor. Within this price range, investors should bid on the stock indicates the number of shares you are willing to buy at various prices. An investor's bids are compiled into the issue book. The investment banker will collaborate with the company to determine a floor price based on the strength of the offers received. This process is called the pricing process. Any offer to buy shares below the cut off price will be rejected. Allocation to other bids will be based on allocation criteria determined jointly with the exchange.

1.8 Key Documents in Public Offerings

A prospectus is an important document that contains details about the company, its background, founders, directors and management, the company's finances, plans, issues, etc. The lead manager will draft the prospectus, which will be previewed by legal counsel before being sent to the SEBI for examination. In the book-built issue, the prospectus will unfold in three forms:

- **Draft Red Herring Prospectus (DRHP):** Contains all legal information except issue price and issue period. Submitted to SEBI for review.
- **Red Herring Prospectus (RHP):** The price range and issue period will be added to the SEBI Verified Prospectus. This will be submitted to the Registrar of Companies.
- **Prospectus:** The final price is entered into the RHP after issuance is complete and the pricing process is complete.

1.9 Important Points of Public Offerings Process

- The company must also enter into a listing agreement with the exchange on which it intends to list its shares. The stock exchanges on which the company will be listed are listed in the prospectus.

- Investment bankers hold conferences for brokers and the press around the opening date. The conference is more than just a promotional event, it is also a forum for brokers and members of the press to meet with company management and learn about their plans.
- Investors apply for IPOs based on advertising campaigns and the efforts of syndicate members. Submissions or bids will be accepted until the editorial deadline.
- Applications are tallied by RTA and reconciled with banks for issuance.
- If the issue is not fully subscribed but is underwritten, the RTA will compile a list of commitments received, subscriptions obtained and forward to each subscriber.
- The company and lead manager determine the allocation price. Allocation criteria will be determined in consultation with the lead underwriter and the stock exchange.
- The RTA will make allocations based on criteria agreed with the exchange.
- Accordingly, a list of transferees and the number of shares allocated to them is created and transmitted to the Depositor, who deposits the shares into each transferee's demat account of each escrow participant.
- For applications made under the ASBA, the registrar will process the application with the bank and release the blocked amount according to the allocation made in the application.
- For other applications with partial allocation, the registrar will process the refund instructions.
- The Lead Manager will notify SEBI and the Exchange of the completion of various procedures. Information will be made publically regarding the same.
- The exchange will set a trading start date. The first trading day was a celebratory event, with company executives and one of the brand ambassadors ringing the opening bell at the exchange. This will start trading the company's shares.
- RTA will compile a list of fees paid to market intermediaries for the procurement of applications.

1.10 SMEs Public Offerings Process

As per SEBI issue of capital disclosures and requirements (ICDR) regulations 2009 SMEs have to carry out activities with their timelines given in following table to bring public issue and get listed on exchange.

S.No.	Activity	Timeline in days
1	Converting the company to a stock company if necessary.	X
2	Prepare documents for conversion and submit to ROC for approval. Documents include memoranda, amendments to the Articles of Incorporation and submission of documents required for the appointment of the above directors.	X+7
3	Approval of conversion by ROC.	X+9
4	Identification and appointment of RTAs. Submit master build form to establish connection using NSDL and CDSL.	X+11
5	Appointment of Chief Executive Officer, Executive Directors, Independent Directors and company secretary. Determining payment, session fees, etc.	X+14
6	Establishment of committees including audits, shareholder grievances and payments.	X+17
7	Prepare a company website and post a code of conduct on the website.	X+21
8	Concluded a tripartite agreement with NSDL and CDSL and acquired ISIN.	X+24
9	Identification and appointment of peer review auditors. Revise your financials for the last 5 years and have them revalidated by reviewers for the last 1 year.	X+26
10	Appointment of Merchant Bankers and Market Makers.	X+29
11	Preparation of DRHP.	X+33
12	Submission of DRHP to the exchange is, in principle, an application for approval to the exchange.	X+38
13	Exchange approval.	X+75
14	Submission of prospectus to the Registrar of Companies (ROC) and approval by the Registrar of Companies (ROC).	X+80
15	Submission of final prospectus to stock exchanges and SEBI.	X+87
16	Opening of the issue.	X+90
17	Closing of the issue.	X+93

18	Determination of allocation criteria by RTA and application to exchanges.	X+96
19	RTA and issuers are processing corporate lawsuits to freeze funds held in custody systems prior to issuance.	X+96
20	NSDL, CDSL, and DEMAT Submission of Corporate Action Forms for Stock Credits.	X+97
21	Submit a listing application to the stock exchange and obtain permission for listing and trading.	X+98
22	Publishing widely published advertisements in English, Hindi and Bengali newspapers within 10 days after completion of all activities.	X+98
23	Get trade approval from the exchange.	X+99

1.11 SEBI Regulations for SMEs Public Offerings

In SEBI issue of capital disclosures and requirements (ICDR) regulations 2009 some amendments have been made related to SMEs public offerings thus a separate chapter XA has also been inserted related to SMEs public issues. The features of these regulations are given below:

- **Paid up capital threshold :** Companies with paid-up capital of up to INR 10 Crore after the issuance can list their securities on the SME Exchange. A company that has a post-issuance paid-up capital ranging from Rs.10 Crore to Rs.250 Crore can choose to sell securities either following Chapter XB guidelines or as per SEBI ICDR Regulations. According to SEBI ICDR Regulations, a security must have a minimum paid-up capital of Rs 10 million to be listed on a major BSE or NSE stock exchange.
- **Filing of the offer document:** The offering documents must be submitted to the merchant banker, who submits it to SEBI along with the new Form H. A prospectus on this matter should also be submitted to the Small Business Exchange and the relevant registrar of the company. It is clearly stated that SEBI will not review SME IPO offer documents.
- **Underwriting:** Underwriters of Issuance under Chapter XA at least 15% of the amount of issuance must be taken over by commercial banks. Some selected investors might be

allowed to make deals with merchant banks to divide the responsibility of fulfilling subscription commitments. Nevertheless, approval from the SME exchange is needed for such a contract to be valid. If the underwriter or nominated investor does not meet the minimum underwriting amount, the merchant banker is obligated to fulfil its underwriting obligations.

- **Minimum application size and number of investors:** The minimum application size for mainstream IPOs is 10,000-15,000 INR per application, while the minimum application size for SME IPOs is set at 100,000 INR per application. Additionally, the minimum number of participants in a SME IPO must be at least 50.
- **Migration to SME exchange:** Listed issuers with post-issue paid-up capital of less than Rs.25 Crore have the opportunity to transfer to the SME Exchange, subject to shareholder consent and meeting the eligibility criteria set by the SME Exchange.
- **Migration from SME exchange:** Companies listed on the SME Exchange will have to be compulsorily transferred to the main board of the exchange if their post-issue share capital exceeds INR 250 crore. Upon completion of rights issue/priority issue/bonus issue in which the above restrictions are invoked, such companies must be transferred to the board of directors. These companies are therefore required to comply with all regulatory requirements, including compliance with the terms of the company's Listing Agreement and the SEBI ICDR Regulation for related purposes.
- **Market making:** The merchant banker responsible for issuing must provide market making services for a minimum of three years. Securities involved in market-making are ultimately moved to selected investors. Market makers are not allowed to buy securities from the issuer or any promoter during the required market-making time. Accordingly, promoters may be permitted to dilute their profits through offers to sell or through offers to acquirers. However, the promoter's shareholdings are not pegged and can be traded with the prior approval of the Small Business Exchange. If, for any reason, the equity value of a designated investor falls below Rs.100000, the market maker is obligated to purchase that investor's entire equity in one lot. Acquisition of shares by a merchant banker or market maker is not a SEBI acquisition unless the merchant banker or market maker intends to take over management thereby changing (directly or indirectly) the control of the issuing company. Exempt from code.

1.11.1 Market maker obligations

SEBI has made it compulsory for all securities listed and transacted on the SME exchange to have market making. The responsibilities of the market maker are to:

- The merchant banks involved in the matter will make markets through brokerage firms registered as market makers on the SME Exchange..
- Merchant bankers are responsible for market making for at least three years.
- Market makers are obligated to provide two-sided quotes 75% of the time per day. This is monitored by exchanges.
- There will be up to 5 Scrip Market Makers.
- Market makers compete with other market makers for better pricing.
- Exchanges set minimum spreads between bid and ask prices.
- A market maker can deregister from an exchange with one month's notice.
- Trading systems are either quote-driven or hybrid.

1.12 Listing Requirements for SMEs Public Offerings

BSE SME and NSE Emerge are two platforms provided by BSE and NSE for SMEs to list their public issues. Norms to list on these exchanges are given in following table:

S.No	Eligibility Criteria's	BSE SME Requirement	NSE Emerge Requirement
1	Post Issue Capital (face value)	•Minimum capital: Rs. 3 crore. •Maximum capital: Rs. 25 crore.	•Maximum: Rs. 25 crore.
2	Track Record	•Net Tangible Assets: Rs. 3 crore. •Net Worth: Rs. 3 crore (Rs. 15 crore for broking companies). • Distributable earnings or net worth for at least two of the last three closed financial years must be at least Rs. 5 Crore. Brokerage profit before tax (PBT) is Rs 5 Crore.	•Track record of at least three years. • Companies must have positive operating cash flow from operations (EBDT) and positive net worth for the last two fiscal years prior to filing.

3	Other Requirement	•Mandatory facilitation of trading in DEMAT securities. •Certificate that no winding petition or reference to BIFR. •Mandatory corporate website. •Promoters to attend to interview with Listing Advisory Committee. •No change in promoter in preceding 1 year.	•The Company has not been referred to BIFR. • Application for liquidation against the applicant company will not be accepted by the competent court. • No significant regulatory action or disciplinary action against the applicant by any exchange or regulator in the last three years.

1.13 SMEs Public Offerings Trends in India

Table 1.1

SME IPOs in a year at BSE SME and NSE Emerge Platform		
Year	**Number of IPOs**	**Amount Raised (Rs Cr)**
2012	14	127
2013	34	362
2014	40	289
2015	43	275
2016	67	555
2017	135	1,738
2018	144	2,409
2019	54	657
2020	27	168
2021	59	787
2022	109	1,980
2023 *	19	322

(Source: www.chittorgarh.com)

Table 1.2

Distribution of Small and Medium Enterprises (Rural and Urban area wise) (Numbers in lakh)			
Sector	**Small**	**Medium**	**Total**
Rural	0.78	0.01	0.79
Urban	2.53	0.04	2.57
All	**3.31**	**0.05**	**3.36**

(Source: MSMEs annual report 2020-21)

From Table 1.1, it can be observed that SME IPOs have positive trend. Number of IPOs and amount raised through IPOs is increasing every year so this could be stated that for SME public offerings economic environment is supportive and positive. Till now around as per Table 1.1, 745 SMEs have issued IPOs and according to MSMEs annual report 2020-21 and according to table 1.2, there are around 336000 SMEs excluding micro enterprises that mean there is great scope for SMEs to raise funds by utilizing these SMEs stock exhanges platform in this economically and supportive environment.

CHAPTER 2

REVIEW OF LITERATURE

This chapter deals with review of literature related to the factors affecting SME's IPOs valuation and performance. Literature is available for stocks and IPOs of mainstream companies but the limited studies have been done so far on SME stocks and IPOs. This chapter represents the review of literature into four sections. Section 2.1 discusses about factors affecting IPOs performance. Section 2.2 exhibits the comparison and relationship between IPOs and stock market. Section 2.3 identifies the research gap and section 2.4 sketches the research questions.

2.1 Factors affecting IPOs performance

Many researchers and investigators tried to identify and explore the various firm's financial performance factors, non-financial factors, macroecomonic and market related factors as well as investor's behaviourial factors to anlyze the effect of these factors on IPOs performance in the primary and secondary market.

Many studies were conducted to investigate the contribution of firm's finacial factors on IPOs performance and researchers like Arora, N., & Singh, B. (2024) investigated the 376 SME IPOs issued from 2012 to 2018 and listed on Bombay Stock Exchange's small and medium enterprise (BSE SME) platform and National Stock Exchange (NSE) EMERGE to examine the role of underwriters reputation on underpricing of SME IPOS through multiple regression and found that underwriter reputation positively influences underpricing of SME IPOs as well as it has no significant impact on their long-run performance. Siwach, P. A. R. V. E. E. N., & Kumar, P. R. (2023) considered 383 SME IPOs to determine the factors affecting underpricing of SME IPOs through multiple regression. In their research market-adjusted excess return was taken as underpricing measure and conclusion was made that variable like pre-issue total assets, pre-issue debt-equity, firm size, pre-issue sales, pre-issue book value and promoters holding significantly influenced the underpricing SME IPOs. Navyatha, K., & Reddy, G. N. (2022) explored the factors influencing IPO pricing of 148 IPOs listed on NSE during the period from 2008 to 2019 through multiple regression technique and found that EPS and return on net worth (RONW) could affect the IPO price significantly. Asif et al. (2016) took EPS, book value per share, capital

employed per share and net operating cash flow per share as dependent varaibles to check the effect on share price and concluded that EPS was most effecting variable on share price. Banerjee et al. (2016) studied the effect of financial ratios on IPO grading and concluded that profitability, liquidity and interest coverage ratio can significantly affect IPO grading. Mania (2015) generalised from their study that the overall financial performance of the companies improves after going public but not significantly but the profitability increases significantly. Geetha & Swaaminathan (2015) examined that book value, EPS and P/E affect market price significantly. Shehzad & Ismail (2014) concluded from their study that EPS and book value per share have significant effect on the share and EPS and book value per share were negatively correlated. Karanja (2014) studied that debt equity ratio, debt asset ration and liquidity ratio were signigicantly affecting ROA of dairy sector small medium enterprises. Menike & Prabath (2014) checked the effect of EPS, DPS and BVPS on stock price and revealed that all three variables had positive significant effect on stock price. Long (2014) studied the influence of net profit of last three years, income of last three years, growth rate of net profit of last two years, growth rate in income of last two years, profit rate of last two years, ROE, IPO volume, accumulated dividend of last three years and average dividend rate on IPO applications with principal factor analysis (PFA) by taking 243 SME IPOs between 2009-2011. He concluded that sucessful IPO application were determined by five principal factors that are firm size, profitability, growth rate, IPO volume and dividend rate. Alanazi & Liu (2013) indicated that operating performanceof compnaies decreases during the post-IPO period and it was found in their investigation that average ROA and ROS after IPO period declined by 47% and 25%. Wang et al. (2013) considered profitability,EPS, accounts recievable ratio, liquidity ratio, quick ratio, inventory turn over ratio and return on equity to check their effect on stock price. They found that profitability, return on equity and EPS have significant effect on stock price. Emamgholipour et al. (2013) took EPS, P/E price to earning ratio and market value to book value ratio M/B to study their effect on stock current year and future year returns. They concluded that EPS had positive significant effect on current year return but P/E and M/B had negative significant effect on current and future year stock returns. Glezakos et al. (2012) suggested that the explanatory power of earnings and book value in the formulation of prices increases over time. It also found that, in the last years, earnings appear to play an increasingly diminishing role in the interpretation of stock prices, compared with the book value. Taani & Banykhaled (2011)

studied the effect of net profit margin NPM, return on equity (ROE), current ratio CR, debt to equity ratio DER, total asset turnover TATO, price to book value PBV, total assets TA and cash flow from operations/sales CFO/sales on earning per share EPS by applying regression. It was found that variables which are consistently significant on earning per share are ROE, PBV, cash flow from operating activities and DER.

Number of attempts were made to explore and examine effect of factors that are not related to firm's financial performance on the IPO performance in primary and secondary market. Some of the studies highlighted as Srivastava, S. P (2022) investigated the cognitive decision making process of investment in SMEs IPOs by retail investors. He analyzed the data qualitatively through sentiment analysis and concluded that the herding behavior of investor contributes significantly in investment decision making and investor most of the time thinks that IPOs are underpriced and provide positive initial return but in the long run IPOs underperform. Arora, N. and Singh, B. (2020) studied the impact of different variables like Issue price (IP), Pricing mechanism (PM), Issue size (IS), Firm Size (FS), Listing Delay (LD), Underwriter Reputation (UR), Hot Market (HM) and Underpricing (RR) on the subscription of SMEs IPOs through quantile regression and concluded that issue price, pricing mechanism, listing delay affect oversubscription inversely on the other side firm size, underwriter reputation, hot market and underpricing have been contributed positively in determining SMEs IPOs oversubscription and issue size emerged out to be significant in quantile regression at 25th, 50th and 75th quantiles . Banerjee and Rangamani (2015) had taken 171 Indian companies IPOs from 2007 to 2013 in the post mandatory IPO regime as sample to check the influence of market specific factors like change in money supply M3, change in FII inflow, market PE, market return and firm specific factors like pre issue RONW, pre issue D/E, post issue promoter holding, firm age, issue size, reputation of lead manager, whether directors have other board membership on IPO subscription level by using multiple regression technique. They found that money supply, FII inflow and market PE have significant positive influence while D/E and board size have significant negative influence on investor IPO subscription level. Bhatia and Agarwal (2015) had considered the sample of 34 Indian IPOs between 2011- 2012 to study the effect of board size, board independence, company size, firm age, leverage, managerial ownership and industry difference on Intellectual Capital disclosure with multivariate analysis. They calculated Intellectual Capital disclosure score with content analysis. The result of their study concluded that there was

significant effect of industry type on Intellectual Capital disclosure. Neupane et al. (2014) investigated 142 Indian IPOs from 2007-2011 to check the effect of fundamental quality of IPOs and investor's sentiments on retail subscription of IPOs, offer price, Initial returns and after market performance with the help of tobit regression analysis. Investor's sentiments covered grey market premium, average initial returns of IPOs, 3 week market returns and market volatility. Fundamental quality considered IPO grading, size of issue, underwriter reputation, institutional investor participation, age of the firm and industry type. This was concluded that retail subscription was significantly affected by investor sentiments but institutional investor subscription was affected by IPO grading. Offer price was significantly influenced by grey market premium along with retail and institutional subscription. There was positive significant relationship between grey market premium and initial returns along with afer market performance was also significantly determined by firm quality in long run. Ho et al. (2012) studied the effect of Intellectual Capital disclosure and some corporate factors like firm size, managerial ownership, industry type and firm age on IPO subscription by using correlation and regression. The constituents of Intellectual Capital disclosure were divided into six dimensions: employees, customers, information technology, processes, research and development and strategic statements. They had taken sample of 60 Hong Kong IPOs listed between 2008 to 2010. The results showed that strategic statements, research and development, information technology and firm size had positive significant effect on subscription level. Latham and Braun (2010) studied a sample of 124 firms from March 2000 to October 2002 by using logistic regression model to measure influence of CEO ownership and firm's leverage level on firm's probability to go for IPO. They documented that CEO ownership and leverage have positive relation in decision to go public but low CEO ownership, low leverage and very high CEO ownership, very high leverage recommended not to go public. Chang et al. (2010) took 1194 listed IPOs from 1993 to 2004 to study the effect of B/M ratio, P/E ratio, underwriter reputation, board size and ownership structure on post IPO stock performance by using different regression analysis approaches. They proved that P/E ratio is the most robust determinant of post IPO stock performance and it has negative relation with stock performance. Also B/M ratio, underwriter reputation, board size and firm size have significant predictive power for post IPO stock returns. Jones and Swaleheen (2010) considered all IPOs of USA from 1980 to 2003 to study the relationship between underwriter reputation and IPO returns. The result showed that initial

returns negatively related to underwriter reputation between 1980 to 1991 and significantly positively related to from 1992 to 2003. Gopalaswamy et al. (2008) investigated the effect of fixed price offer, book building offer, period of issue, sector in which industry operates on long run post issue performance of IPOs. They took all Indian IPOs listed during 1999 to 2004 and showed that considered variables had no effect on post IPO performance in short run but in long run IPOs issued through book building had performed better than IPOs issued through fixed price offer. Sohail & Nasr (2007) studied 50 IPOs of KSE from 2000 to 2006 to find the determinants of under pricing. They took uncertainity , market capitalisation, secondary issue, oversubscription, proportion of shares offered to public, offer size, price earning ratio and market volatility as independent variables and MAAR as dependent variable to measure underpricing. They concluded after applying cross sectional regression analysis that uncertainity, offer size, market capitalisation and oversubscription were only siginificant variables to determine the level of underpricing. Zahn et al. (2007) researched the relationship between Intellectual Capital voluntary disclosure information in prospectus and long run performance of 228 Singapore firms during 1997-2003 with t test and regression. They concluded that Intellectual Capital information was inversely associated with long run IPO performance. Cordazza (2007) considered all IPOs from Nuovo Mircato and Borsa of Italy between 1999-2002 to study the association between intangible disclosure in the prospectus and firm specific variables with regression. He reported that firm size and pre IPO managerial ownership were associated with intangible disclosures where as firm age and level of technology were not. He also found that intangibles disclosure were important in assessing firm's value. Shi et al. (2007) investigated the relationship between IPOs under pricing and disclosure requirement of IPOs prospectus by taking 6025 IPOs as sample taken from 34 different stock exchanges across the world between 1995 to 2002. They documented that IPO under pricing and disclosure regulations were negatively associated and disclosure effect was significantly smaller in countries with strong auditing regimes. Strom (2006) analyzed IPO prospectuses and annual reports of companies from 2000 to 2002 with self-constructed disclosure index consisting of 34 variables and proved that prospectuses contain considerably more information than annual reports to reduce information asymmetry. Strom (2006) researched IPO prospectuses of companies from 1996 to 2004 by using content analysis and found that profit forecasts were value relevant for investors. Flostrand and Strom (2006) investigated sell side analysts equity reports of year 2004 by using pre developed Jenkins

disclosure index consisting of 70 variables and documented that non-financial information is valuation relevant. It was also concluded that there was a positive relation between analysts report content and target firm size. Bukh et al. (2005) analyzed the effect of variables like company type, managerial ownership, firm size and firm age on Intellectual Capital disclosure by regression. They had taken sample of 68 IPOs listed on Copenhagen stock exchange between 1990 to 2001. Content analysis was used to calculate Intellectual Capital disclosure score. They concluded that managerial ownership and company type significantly effect Intellectual Capital Disclosure. Chiraphadhanakul and Gunawardana (2005) considered sample of 95 IPOs of Thailand stock exchange (SET) between 2000 to 2004 to study the influence of variables like 60 day trend of SET index, 60 day trend of SET volume, firm age, firm size, return os total assets (ROA), debt ration, return on average of 3 year returns (RO3), P/E ratio and PE ratio of three years (PE3) on initial returns of IPOs by regression analysis. The results proved that firm size, PE3, debt ratio, SET volume trend and SET index trend had significant effect on the initial returns of IPO. Jaskiewicz et al. (2005) considered all German and Spanish IPOs during the period 1990 to 2000 to check long run stock performance and influence of family owned IPOs, non family owned IPOs and age of the firm on buy and hold abnormal returns (BHAR). They found that family owned IPOs had positive impact on the long run stock performance and reverse was true for firm's age. Breton and Taffler (2001) analyzed 105 analysts' reports from October 1989 to February 1990 by using content analysis. They framed five thematic categories like growth, management and strategy, profitability, financial position and market conditions further these thematic categories were used to drive 15 thematic variables by adding positive , negative and neutral situations with each thematic category. They identified from the univariate analysis that four variables management and strategy positive, management and strategy neutral, market conditions negative and financial position positive were significantly contributing in stock recommendations. From multivariate analysis they concluded that three variables management and strategy neutral, management and strategy positive and profitability positive could predict analyst judgments.

There were studies which illustrated the role of macroeconomic and market related factors in stock performance and inference can be withdrawn for the same from the researchers like P et al. (2017) executed empirical study from Jan. 2013 to Dec. 2015 to analyze impact of macroeconomic indicators like IIP, Interest rate, inflation rate, GDR, FDI, crude oil price and

exchange rate on S&P BSE SME IPO index value by using correlation, multiple regression and Granger Causality techniques. They concluded that inflation rate and interest rate have positive significant impact on BSE SME IPO index whereas exchange rate has negative significant impact on the same. Al-Tamini et al. (2011) investigated sample of 17 companies of UAE financial market from 1990 to 2005 by applying OLS regression analysis to study the effect of variables EPS, money supply, GDP, interest rate, DPS, oil price and CPI. They identified that EPS was most positive significant influencing factor on stock prices along with positive significant relationship was reported between stock price, money supply and GDP whereas negative significant relationship between stock price, CPI and interest rate was found. Boulton et al. (2010) investigated the effect of country level governance on IPO underpricing by taking sample of 4462 IPOs across 29 countries between 2000 and 2004. They reported that underpricing was higher in countries where corporate governance strengthens investors relative to insiders. Gao (2010) studied China's IPOs initial returns and found that various behavioral variables like market momentum, individual investor oversubscription and trading volume had significant influence on the IPOs initial returns. Brau et al. (2007) took sample of 4219 IPOs from Center for Research in Security Prices database (CRSP) between 1990 and 2001 to study the impact of secondary share sales, insider selling and secondary share revisions on after market IPOs performance. The result reported that insider selling was inversely related to long run performance and after market performance was not influenced by offerings type whether primary or secondary. Marisetty and Subrahmanyam (2006) considered 2713 Indian IPOs during 1990-2004 to compare the performance of IPOs initial returns that were affiliated to business groups, foreign business groups (MNCs), government affiliated firms and stand alone firms. They obsereved that performance of IPOs that were affiliated to foreign groups and business groups performed better. Tvaronavičiene and Michailova (2006) analyzed quarterly data of Lithuania stock exchange OMX Vilnius stock index from 2000 to 2005 with correlation and regression analysis to study the impact of macroeconomic variables FDI, state budget revenue, state budget expenditure, GDP, price index of consumer goods and services, money supply, average profitability of governmental bonds and inflation on Vilnius stock index. They demonstrated that GDP, CPI, M2, average profitability of governmental bonds have positive impact on OMX Vilnius stock index whereas FDI, state budget revenue and expenditure as well as inflation had impacted negatively.

2.2 Comparison and relationship between IPOs and stock market

Multiple investigations were carried out to compare the stock returns with the stock market returns in short and long run along with that several studies were done to check the impact of stock market returns on stock return in short and long run and vice versa. Out of these researches and studies some of them have been discussed here like Babu, T. R. C., & Dsouza, A. E. C. (2021). inspected the behavior of short run returns of IPOs from the listing day onwards and extracted that highest returns and abnormal returns would be possible only upto 3rd day of the trading from the listing after that initial returns started declining and abnormal returns tend towards normal return as the time increases from the IPO listing day. Arora, N., & Singh, B. (2020) analyzed the long run returns of SMEs IPOs for than 12 months using cumulative abnormal returns (CAR), buy and hold returns (BAHR) and wealth relative index. This study discovered that IPOs of small- and medium-sized firms over perform the benchmark index for 12 months post listing which was opposite with the international evidences of underperformance of IPOs and consistent with the results of some Asian markets such as Korea, Malaysia and China. Choi et al. (2010) did comparison of one, three and five year holding returns of 241 privatization IPOs from 42 different countries during 1981-2003 with respect to their domestic stock market indices and found that privatization IPOs significantly outperformed their domestic market in long run. Sohail and Raheman (2010) had taken 73 IPOs of Karachi stock exchange during the period 2000 to 2009 as sample to analyze short run market adjusted performance in different state of economy: Normal, Boom and Recession by using wealth relative model. They concluded that short run returns were abnormal in normal and boom states of economy while return turned down in recession. Zaluki et al. (2008) anlyzed influence of earnings management on IPOs operating performance by taking 254 IPOs of Malaysia between 1990-2000 as sample. They also made comparison between pre and post IPOs performance. The results concluded that IPOs had performance decline and greatest decline was in the immediate IPO following year. They also reported that post IPO performance declined due to earnings manipulation at the time of launching IPOs. Sohail et al. (2007) studied short run and long run performance of 50 IPOs from Karachi stock exchange between 2000 to 2006. They performed this analysis by calculating returns with market adjusted model (MAM) and capital asset pricing model (CAPM). They found that IPOs had significnatly underperformed in long run. Choi and Nam (2006) did comparison of long run buy and hold returns of 241 privatization IPOs from 41 countries with

respect to their domestic market and found that over the five year period privatization IPO firms had outperformed their domestic market by 38.8 percent. Although long run performnace of IPOs was influenced across industries, issuing countries, issue period and the origin of commercial law of the country. Kooli et al. (2003) examined long run performance of 445 IPOs in Canada from 1991 to 1998. They showed that IPOs under performed over a period of five years and several behavioral aspects were discussed behind this underperformance. Durukan (2002) considered sample of 173 IPOs of Istanbul stock exchange from 1990 to 1997 to check the association between long run and short run performance and also studied factors like method of IPO, privatization, type of investors purchasing share, age, P/E ratio, gross proceeds, portion of shares offered to public, D/E ratio and firm size to determine short run and long run stock returns with regression and correlation. He documented that long term returns were negatively associated with short term returns. Also firm size, gross proceeds, method of IPO, age of firm and D/E ratio were statistically significant to determine short term returns and to determine long term returns variables like firm size, portion of shares offered to public and privatization were statistically significant. Corhay et al. (2002) analyzed long run performance of 258 IPOs of Malaysia between 1992-1996 with cumulative adjusted market return (CAR). They also studied the effect of B/M ratio, P/E ratio, cash flow to price ratio and size of IPO on CAR with regression. They found that IPOs tend to outperform market with CAR of 41.7% over three years period from the listing day. They also showed that growth IPOs underperformed value IPOs and both types of IPOs generated more returns than market. From regression they concluded that CAR was positively influenced by B/M ratio, P/E ratio and cash flow to price ratio. IPO size was inversely proportional to CAR. Jain & Kini (1994) found in their study that firms going public exhibit a substantial decline in post-issue operating performance.

2.3 Research Gap

Review of literature was done and this was extracted that most of the research studies were based on the performance of IPOs from the returns perspective and very limited studies were available which discussed about the price valuation of IPOs in the prelisting phase as well as post listing phase especially for SMEs IPOs the few number of studies have been done so far in this context. There is a gap between number of research studies availability for mainstream companies stocks and SMEs in the context of performance and valuation of IPOs in the pre and post listing phase.

In addition to that very limited researches considered non-financial factors for the valuation and performance analysis of IPOs which again gives space to go for further study. This study was carried out to bridge the gaps up to some extent which were identified in review of literature by finding out the answers of some research questions as mentioned in section 2.4.

2.4 Research Questions

- What are the different types of factors to be used for valuations and performance analysis of SMEs IPOs in pre listing phase?
- Which are the various parameters to analyze and predict listing day price performance of SMEs IPOs?
- Which are the key indicators to forecast the post listing valuations of SMEs IPOs in the short and long run?
- What would be level of linkages between SMEs IPOs performance and SME stock exchanges performance?

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Need of the Study

SME sector is the booming from investment point of view as Indian economy is now focusing on SMEs sector's development. Therefore SEBI allowed SMEs to trade in open stock market since 2012 onwards. Most of the investors have explored NSE/BSE markets and gained a lot but now they are moving towards SME market as there is huge scope for investment multiplication. Presently there are more than 480 SMEs listed on small medium enterprise platform of NSE and BSE called as NSE EMERGE and BSE SME respectively. According to MSME annual report of 2020-21 there were more than 633 lakhs MSMEs registered in India and out of which around 6.36 lakhs units were registered as small medium enterprises (SMEs). Present government of India is more focused on growth of SMEs. Therefor SMEs will come in open market to fulfill thier funds requirement through public offering. It will be good opportunity for the investors to divert their portfolio towards SMEs for unexpected higher return. SMEs public offerings investors might have the reqirement of some valuation model through which valuations of public offerings could be done with the help of key-financial and non-financial information of the company.

There is no doubt that important informations are available in IPO prospectus, analysts reports and annual reports of companies related to IPO investment. As few previous researches raised research questions for future research: What are the factors lay behind the provision of information in the prospectus and what analysts find relevant in the prospectus? Although we have enough studies which states the factor determining listing day IPO performance, short term performance and long term performance of the mainstream stocks. Especially for SME securities the number of studies are limited which tried to establish the relationship between listing day performance, short term performance and long term performance. But we have not found studies which tell us the factors from financial and non financial information deciding SME securities subscription and performance valuation at one plateform which is required to an investor for decision making whether to invest or not to invest in SME securities. In addition to that we do

not have much research literature which provides us the factors specially from financial and non financial infomation affect listing day, short term and long term performance of Indian SME securities.

Therefore this study was an attempt to identify the various factors from key-financial information and non-financial disclosures for SME public offerings valuation. This research also attemped to provide the valaution models for pre listing and post listing of SMEs public offerings. In addition to that this study also attempted to examine the role of Indian SME stock exchanges in the performance SMEs public offerings for short run and long as well as the comparison of SMEs stocks performance with SME stock market performance.

3.2 Objectives of the Study

The main objective of the study was to identify the factors determining the Pre - Listing and Post - Listing performance of Indian SMEs public offerings. This study also conduced analysis of short run and long run performance of SMEs public offerings as well as relationship with Indian SME stock exchanges performnace. Keeping all these as mentioned in consideration, the present study was conducted with the following objectives.

1. To study the effect of key financials and non financial diclosures on SME public offerings subscription.
2. To identify key financials and non financial disclosures contributing in determining offer price of SME public offerings.
3. To study the determinants behind listing day performance of SME public offerings.
4. To examine the relationship of key financials and non financial disclosures in post listing performance of SME public offerings.
5. To compare the short run and long run performance of SME public offerings with market performance.

3.2.1 Research hypotheses

H_{01}: There is no effect of key financials and non financial disclosures on public offerings subscription.

H_{02}: Key financials and non financial disclosures do not contribute in determinig offer price of SME public offerings.

H_{03}: Key financials and non financial disclosures have no role in determinig listing day performance of SME public offerings.

H_{04}: Key financials and non financial disclosures have no relationship with post listing performance of SME public offerings.

H_{05}: There is no difference between short run and long run performance of SME public offerings with market performance.

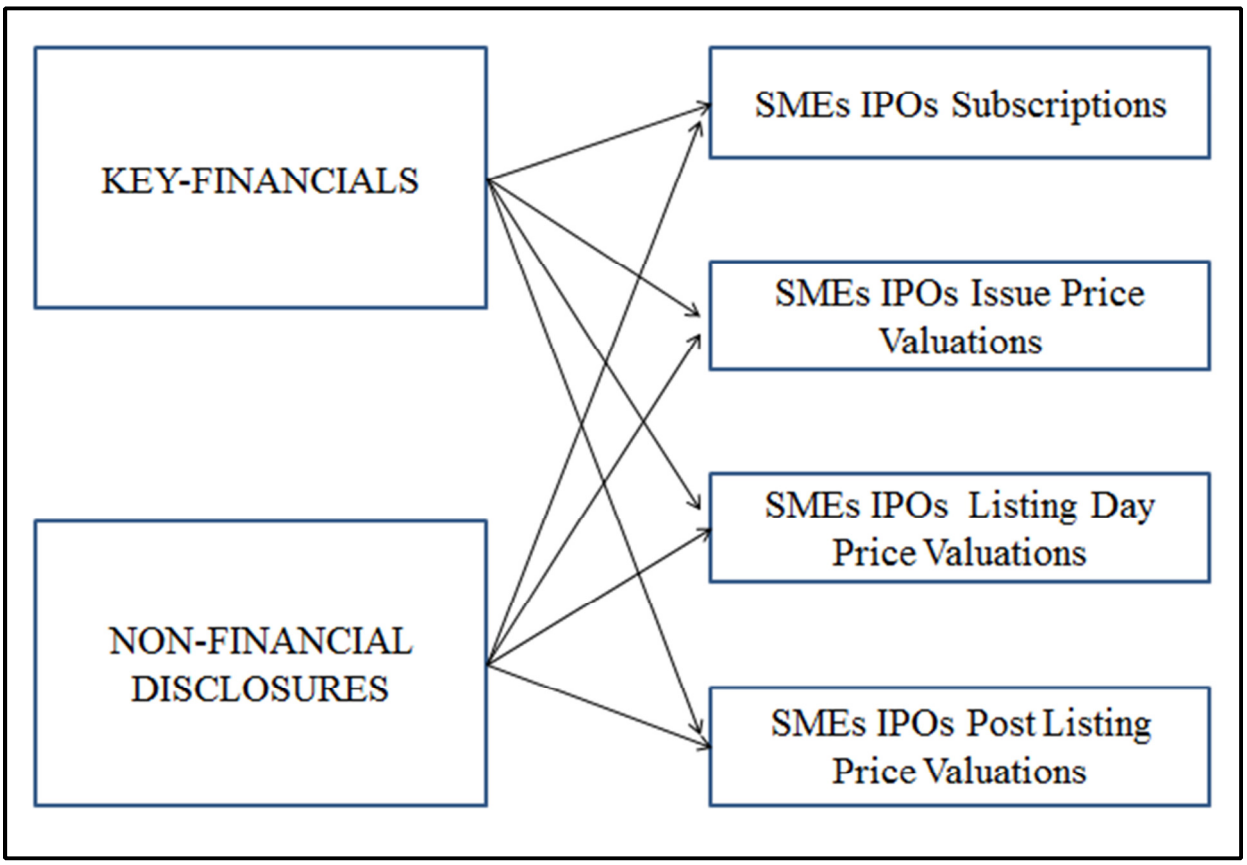


Figure 3.1: Theoretical Model of the Study

3.3 Research Design

The present study was descriptive and exploratory in nature to explore factors from key-financial and non-financial information for determining pre listing and post listing performance of SMEs

public offerings in Indian capital market. This study also described the short term and long term performance of SMEs public offerings in the Indian capital market as well the comparison and relationship of Indian SMEs public offerings performance with Indian SMEs stock markets.

3.4 Period of the Study

The period chosen for this study was from June 2012 to March 2021. This period was chosen because BSE launched platform SMEs named as BSE SME in March 2012 and SMEs started listing on this exchange. After the launching of BSE SME NSE also launched its own plalfrom for SMEs named as NSE emerge in September 2012.

3.5 Universe of the Study

All SMEs public offerings during this study period from June 2012 to March 2021were taken as universe of the study. There were more than 500 SMEs who have raised capital through public offerings of different types of securities from Indian capital market out of this SMEs which offered common equity through IPOs were considered for selecting sample.

3.6 Sample Selection of the Study

Bombay Stock Exchange SME platform (BSE SME) and National Stock Exchange Emerge platform (NSE SME Emerge) were taken as sampling frame for this study. To select sample purposive sampling techniques was used and 352 SMEs listed on BSE SME and NSE emerge were selected as sample.

3.7 Construct of the Study

SMEs key-financials and non-financial disclosures were taken as independent construct to achieve the objectives related to factors determining pre and post listing performace. SMEs IPOs Subscriptions and issue price were taken as dependent variables for pre listing performance. Listing day performance were recorded through listing day opening and closing prices of SMEs IPOs on the day of listing which were treated as dependent variables. For post listing performance one month, three months, six months, nine months and One year SMEs IPOs closing prices were considered as dependent variables. MAERs for listing day, one month, three months, six months and nine months were taken for short run performance of SMEs IPOs and

one year, two years and three years MAERs were taken to analyze the long run performance of SMEs IPOs.

3.7.1 Key-Financials

Financial statements anlysis is the primary means of communicating important financial information about a business to those who have an interest in the business. Four major financial statements are used to communicate financial information about a business:

- Income statement,
- Statement of retained earnings
- Balance sheet
- Statement of cash flows

Public offerings documents are a primary source of financial information about public companies and are mandatory to disclose to all potential investors of company's public offerings to make decisions about investments. These offer documents are also called companies prospectus and companies have to file these documents with SEBI as per SEBI (Issue of capital and disclosure requirements) Regulations 2009.

Many financial analysts and investors use key financial ratios to evaluate companies for investment decisions. After the extensive review of literature this was concluded that the financial ratios of SMEs would be taken as key financials which would provide useful financial information to do valuations and hence make investements in SMEs public offerings. Major key-financials were given in table 3.1.

Table 3.1: List of Key-Financials

Name of Variable	Label	Definition
Debt-Equity Ratio	D/E	It is the percentage of total debt divided by shareholder's equity and reserves. Latest value prior to the SME IPO of this ratio would be recorded for data collection

Long Term Debt-Equity Ratio	L_D/E	It is the percentage of total long term debt divided by shareholder's equity and reserves. Latest value prior to the SME IPO of this ratio would be recorded for data collection
Current Ratio	CR	It is the percentage of total current assets divided by total current liabilities. Latest value prior to the SME IPO of this ratio would be recorded for data collection
Fixed Assets Turnover	FA_Turn	It measures the firm's efficiency in utilizing its fixed assets to generate revenues. Latest value prior to the SME IPO of this ratio would be recorded for data collection
Inventory Turnover	Inv_Turn	This ratio shows the number of times firm's inventory is renewed. Latest value prior to the SME IPO of this ratio would be recorded for data collection
Debtors Turnover	Deb_Turn	This ratio indicates the efficiency of firm's in collecting receivables from its debtors. Latest value prior to the SME IPO of this ratio would be recorded for data collection
Interest Cover Ratio	Int_Cov	This ratio indicates the efficiency of firm's in paying interest on its outstanding debt. Latest value prior to the SME IPO of this ratio would be recorded for data collection
PBIDTM (%)	PBIDTM	It is the profit margin of adjusted gross profit and interest over sales. Latest value prior to the SME IPO of this ratio would be recorded for data collection
PBITM (%)	PBITM	It is the profit margin of adjusted gross profit and interest subtracting depreciation over sales. Latest value prior to the SME IPO of this ratio would be

		recorded for data collection
PBDTM (%)	PBDTM	It is the profit margin of adjusted gross profit over sales. Latest value prior to the SME IPO of this ratio would be recorded for data collection
CPM (%)	CPM	It is the profit margin of adjusted net profit and depreciation over sales. Latest value prior to the SME IPO of this ratio would be recorded for data collection
APATM (%)	APATM	It is the profit margin of adjusted net profit over sales. Latest value prior to the SME IPO of this ratio would be recorded for data collection
Return on Capital Employed	ROCE	It is the ratio of net operating profit and total capital employed. Latest value prior to the SME IPO of this ratio would be recorded for data collection
Return on Net Worth	RONW	It is the ratio of net profit and total shareholder's equity. Latest value prior to the SME IPO of this ratio would be recorded for data collection

3.7.2 Non-Financial disclosures

In present age investors do not make investments decisions not only on the basis of financial information besides this investors need information related to organisation's strategy, governance structure, intellectual capital, social responsibilty, human capital, social and relationship capital etc. This type of infomation is called non financial information. As per SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015 companies have to provide non financial disclosures in the offer documents so that investors can be better informed about companies. After the review of previous researches various variables related to non-financial disclosures were indentified and this reasearch measured the non-financial diclosures by considering variables given in table 3.2.

Table 3.2: List of Non-Financial Disclosures

Name of Variable	Label	Definition
Listing Day Opening Price	Lis_Opng	Listing day opening price of the SME IPO listed on respective stock exchange
Listing Day Closing Price	Lis_Clsg	Listing day Closing price of the SME IPO listed on respective stock exchange
Offer Price	OP	The price at which security is initially issued to investors
Market Maker Subscription	Subs_MM	Number of times SME IPO is subscriber by market makers from the total percentage of shares reserved for them
Retail Subscription	Subs_R	Number of times SME IPO is subscriber by Retail investors from the total percentage of shares reserved for them
Non Retail Subscription	Subs_NR	Number of times SME IPO is subscriber by Non Retail investors from the total percentage of shares reserved for them
Overall Subscription	Subs_O	Number of times SME IPO is subscriber by all types of investors from the total shares offered
Stock Exchange	ST_EX	Exchange on which SME IPO is going to be listed. It is a dummy variable if IPO is listed on NSE_SME then it takes value as 1 and if the IPO is listed on BSE_SME then it takes value as 0

Issue Type	Iss_TY	Pricing Method adopted to bring SME .It can be either book building or fixed price. It is a dummy variable if it is fixed price then it takes value as 1 and if it is book building the it takes value as 0
Company Type	Com_TY	It is dummy variable which represents nature of business. In case of manufacturing or production the value will be 1 for trade or services value will be 0
Issue Size (Shares)	Iss_Shares	Total number of securities issued by firm
Issue Size (Value)	Iss_Value	Total value of the issue in Crores to be raised by the firm
Lot Size (Shares)	Lot	least number of shares of SME IPO that can be issued to investors
Market Maker Reserve	Res_MM	Number of shares reserved for market makers in SME IPO
Net Issue of Shares	Iss_Net	Net number of shares available for investors other than market makers
Shares Allotted to Market Makers	Allot_MM	Number of shares allotted to the market markers as per basis of allotment document of the respective SME IPO
Shares Allotted to Retail Investors	Allot_R	Number of shares allotted to the retail investors as per basis of allotment document of the respective SME IPO
Shares Allotted to Non Retail Investors	Allot_NR	Number of shares allotted to the non-retail investors as per basis of allotment document of the respective

		SME IPO
Market Makers %age Allocation	MM_%Allot	Percentage of shares allotted to the market markers over the total shares allotted as per basis of allotment document of the respective SME IPO
Retail Investors %age Allocation	R_%Allot	Percentage of shares allotted to retail investors over the total shares allotted as per basis of allotment document of the respective SME IPO
Non Retail Investors %age Allocation	NR_%Allot	Percentage of shares allotted to non-retail investors over the total shares allotted as per basis of allotment document of the respective SME IPO
Firm Size	Fi_Si	firm size is measured by latest total sales disclosed by firm in their prospectus during the opening of SME issue
Independent Directors	Ind_Dir	Number of independent directors disclosed by firm in their prospectus during the opening of SME issue
Board Size	Board	Total number of directors in the firm's board disclosed in the firm's prospectus document during the opening of SME issue
Type of Affiliation	Private	It is measured through two dummy variables considering three types of affiliations which are private Indian group companies, standalone companies and private foreign group companies. Variable "Private" would
	Standalone	

		be the first dummy variable if the firm is affiliated to private Indian group then it takes value as 1 else 0. Variable "Standalone" would be the second dummy variable if the firm is standalone then it takes value as 1 else 0. Dummy variable for Foreign group type of affiliation would be considered as reference group.
No of Group entites	No_Grp	Number of group entities/companies affiliated with the SME offering securities
Prior Market Returns	Pr_Mkt_Rtrn	It is the weighted average of the buy and hold returns on SME stock exchange index (BSE SME and NSE emerge) in the three months prior to the issue opening date. Weights will be 3, 2 and 1 for one month before, two months before and three months before respectively
Prior Market Volatility	Pr_Mkt_Vlty	Measure of market volatility as the standard deviation of daily market return of SME stock exchange (NSE emerge or BSE SME) over one months before the issue opening date
Prior Initial Returns	Pr_Ini_Rtrn	It is the average initial return for IPOs listed in the two months prior to the issue opening date of IPO
IB Positive Listings	IB_Pos	Number of IPOs handled by investment banker in which IPO is underpriced or provided positive return

		to the investor during the time period prior to the SME IPO
IB Total Listings	IB_Tot	Total Number of IPOs handled by investment banker during the time period prior to the SME IPO
IB Success Rate	IB_Rate	Percentage of IPOs which are underpriced or provided positive return from the total number of IPOs handled by investment banker during the time period prior to SME IPO
Listing Delay	Lis_Dly	Number of days between listing date and SME IPO issue closing date
Firm Age	Age	It is number of years calculated from the date of incorporation of the SME to the offer date of SME IPO
Board Independence	Brd_Indp	Percentage of independent directors in firm's board of directors disclosed by firm in their prospectus during the opening of SME issue

3.8 Source of Data

Secondary data were used to analyze the performance of Indian SMEs IPOs under this study. Data related to key-financials and non-financial disclosures were taken from SMEs IPOs draft red herring prospectus DRHP and red-herring prospectus RHPs. Data of SMEs stock prices, issue prices, offer prices and market indices were collected from BSE SME websites and NSE emerge websites according to the SMEs listing on their respective stock exchanges. Data of SMEs public offerings subscriptions were taken from basis of allotment documents SMEs IPOs.

3.9 Quantitative Techniques Used in the Study

Financial tools and statistical techniques were used to analyze the research objectives. The details of all tools and techniques which were used to study the required objectives are given as:

3.9.1 Financial Tools

- **Raw returns / Simple returns:** Raw returns of SME IPOs and market were calculated for listing day, one month after listing, three months after listing, six months after listing, nine months after listing, twelve months after listing, twenty four months after listing and thirty six months after listing by using the formulas given as:

$$R_{it} = [\{P_{it}/P_{io}\} - 1] \quad .....(3.1)$$

$$R_{mt} = [\{M_t/M_o\} - 1] \quad .....(3.2)$$

Where

R_{it} = Raw return of SME firm i at time t

R_{mt} = Return on SME stock market index during period t

P_{it} = Closing price of the SME share of firm i at time t

P_{io} = Issue price / Offer price of SME share of the i^{th} firm

M_t = SME stock market closing index value at time t

M_o = SME stock market closing index value on the SME IPO issue closing day

t (Time)	Type of Returns to be Calculated
Listing day	Listing day returns
One month after listing	One month returns
3 months after listing	Three months returns
6 months after listing	Six months returns
9 months after listing	Nine months returns
12 months after listing	One year returns
24 months after listing	Two years returns
36 months after listing	Three years returns

- **Market Adjusted Excess Returns (MAERs):** It is excess return generated by SME IPOs over the market return. It is calculated by subtracting market return from the raw return of SME IPOs. It is used to check the extent to which IPOs beat the market returns.

$$MAER_{it} = [R_{it} - R_{mt}] \times 100 \quad .....(3.3)$$

$MAER_{it}$ = Market adjusted excess returns of SME firm i at time t
R_{it} = Raw return of SME firm i at time t
R_{mt} = Return on SME stock market index during period t

- **Wealth Relative Index (WRI):** It is an index used to check the magnitude of SME IPOs performance over the market. WRI value more than 1 implies that SME IPO outperformed the market and WRI value less than or equal to 1 signifies that SME IPO either underperformed or equally performed with the market.

Wealth relative index (WRI) = (1+ Average of R_{it}) / (1+ Average of R_{mt}) .....(3.4)

R_{it} = Raw return of SME firm i at time t
R_{mt} = Return on SME stock market index during period t

3.9.2 Statistical Techniques

- **Karl Pearson correlation coefficient:** The coefficient of Pearson's correlation was calculated to check the level of linear relationship between the SME IPOs returns and SME stock market indices returns as well as to analyze the significance of relationship.
- **Two sample T test:** The two sample T test was used to check the mean difference between SME IPOs returns and SME stock market indices returns. T statistics value and P value would infer the level of differences in the mean value and it significance respectively.

- **Simple linear regression:** Simple linear regression is a statistical tool to check the effect of one independent variable on dependent variable. In this study simple regression was used to analyse the effect of short run and long run SME stock exchange indices returns on SME IPOs short run and long run returns.
- **Backward stepwise regression:** It is one of the types of multiple regressions in which more than one independent variables and one dependent variable is taken. It starts with full model by considering all the independent variables and then eliminates stepwise unwanted independent variables till the point of best model which explains best variations with maximum significant adjusted R square value. In this study backward stepwise regression was used to analyse the effect of key-financials and non-financcial disclosuers on SME IPOs pre listing and post listing performance.

SPSS, Micrsoft Excel 2010 and Tableau softwares were used in all the statistical work and analysis of data.

3.10 Limitations of the Study

Thus all efforts have been made so that the study present a true picture of the Indian SMEs public offerings market but in spite of all care and efforts taken, few limitations were considered in the presentation of this study findings. The limitations of the study are as follows

1. Only secondary data was used for the analysis of this study. Best possible efforts was made to get quality data but still researcher has no control over it and he had to rely on the data which was available in prospectus documents and other database like Capitaline.
2. This study was limited to SME IPOs offered common equity types of securities and the findings of this study may be applicable to only common equity types of SME IPOs and not for other types of SMEs public offerings.
3. This study considered the Indian SME IPOs and SME stock exchanges so the findings of this study could not be generalized for other types of stock exchanges of India or other countries.
4. As per SEBI norms to float securities in the public by SMEs securities are more relaxed that Non - SMEs or main stream companies so this study did not consider the corporate governance compliance aspect of SMEs.

3.11 The entire study has been divided into the following chapters

1. Introduction: This chapter discussed about the Indian SMEs and their listing along with scenario SMEs stocks trading on Indian SME stock exchanges.
2. Review of Literature: This chapter summarized on review of literature related to identification of key-financials and non-financial disclosures
3. Research Methodology: This chapter was dedicated to research methodology which would specify need, objectives, research design, period of study, data collection, constructs of the study and quantitative techniques used to carry out this study.
4. Key Financials, Non-Financial Disclosures and SMEs Public Offerings Subscriptions: This chapter explored the relationship and effect of key financials and non-financial information on subscription of small medium enterprises (SMEs) public offerings.
5. Key Financials, Non-Financial Disclosures and SMEs Public Offerings Issue Price Valuations: This chapter analyzed the relationship and effect of key financials and non-financial information on issue price of small medium enterprises (SMEs) public offerings.
6. Key Financials, Non-Financial Disclosures and SMEs Public Offerings listing day Price Valuations: This chapter studied the relationship and effect of key financials and non-financial information on listing day performance of small medium enterprises (SMEs) public offerings.
7. Key Financials, Non-Financial Disclosures and SMEs Public Offerings Post Listing Price Valuations: This chapter inspected the relationship and effect of key financials and non-financial information on post listing performance of small medium enterprises (SMEs) public offerings.
8. Comparison and relationship of SMEs public offerings performance with market performance: This chapter investigated the comparison and relationship of short run and long run SMEs public offerings performance with the market performance.
9. Findings, Conclusions and Suggestions: In this chapter overall findings, conclusions, suggestions and future scope related to the objectives of this thesis were discussed.

CHAPTER 4

EFFECT OF KEY FINANCIALS AND NON-FINANCIAL DISCLOSURES ON SME PUBLIC OFFERINGS SUBSCRIPTION

This chapter tried to explore the relationship and effect of key financials and non-financial information on subscription of small medium enterprises (SMEs) public offerings. There are different types of investors like market makers who are responsible to create and maintain market for trading of securities for particular IPOs on the same line we have retail investors and non-retail investors who always seek profitable opportunities to invest in the securities which are offered initially by the firms to raise capital from public. Firms formally disclose their key financial and non-financial information to the public through prospectus document before the opening of public offerings subscription. This chapter studied in detail the relationship between different types of key financials and non-financial disclosures and subscriptions of SMEs public offerings made by different types of investors. The below given first objective of this research study was studied by testing statistically the below mentioned null hypothesis.

Objective 1: To study the effect of key financials and non-financial disclosures on SMEs public offerings subscription.

Null Hypothesis H_{01}: *There is no effect of key financials and non-financial disclosures on SMEs public offerings subscription.*

This chapter was divided into six sections to explain the progress of achievement of the objective under the research study for this chapter. Section 4.1 discussed about the research methodology to explore the relationship between types of dependent variables related to the SMEs IPOs subscriptions and independent variables related to the key financials and non-financial disclosures. Section 4.2 presented the effect of key financials and non-financial disclosures on market makers subscription of SMEs IPOs. Section 4.3 exhibited the effect of factors related to key financials and non-financial disclosures on the retail market subscriptions of SMEs IPOs. Section 4.4 elucidated the findings of key financials and non-financial factors determining the non-retail subscriptions of SMEs IPOs. Section 4.5 elaborated the relationship between overall

subscription of SMEs IPOs and different types of key financials and non-financial information disclosed to the investors. Section 4.6 described the overall conclusion and summary related to analysis of objective of the research study under this chapter.

4.1 Methodology

In this research 352 SME IPOs offering common equity securities from time period June 2012 to March 2021 were taken as sample. Secondary data related to market makers subscriptions, retail investor's subscriptions, non-retail investor's subscriptions and overall subscriptions were collected from basis of allotment documents of these 352 SME IPOs. These all types of subscription of SME IPOs were taken as dependent variables to test the hypothesis of objective 1 of the research thesis under this chapter by using multivariate regression. Data related to key financials and non-financial variables were collected from the prospectus documents of these 352 SME IPOs, financial statements, Capitaline data base and other useful and reliable sources. There were total 38 variables related to key financials and non-financial disclosures taken as independent variables out of which 24 variables were related to non-financial disclosures construct and 14 variables were made the key financials construct for the study of respective objective under this chapter. These all 38 variables consisting of key financials and non-financial disclosure constructs were taken as the independent variables to statistically test the null hypothesis related to respective objective under this chapter by using multivariate regression technique. List of all Key-Financials and Non-Financial disclosures which were used for the studying of respective objective under this chapter can be obtained from tables 3.1 and 3.2 respectively.

Multivariate backward stepwise regression was used to study the effect of independent variables (Key-Financials and Non-Financial Disclosures) on the dependent variables (Different Types of SME IPOs Subscriptions) by taking care the basic conditions of multivariate regression that are given as:

- Dependent variables must be continuous in nature.
- No autocorrelation should exist among the residuals which can be checked through the Durbin Watson test.
- Linear relationship must be there between dependent and independent variables.

- Variance among the residuals must be homogeneous which can be tested through Breush Pagan test.
- No Multicollinearity should be there between the independent variables and this can be analyzed through tolerance limits and variance inflation factor (VIF) value.
- There should be normality in the residual values which can be tested through Kolmogorov-Smirnov and Shapiro-Wilk test.

To test statistically the main null hypothesis related to respective research objective under this chapter had further been divided into set of four null hypotheses according to four dependent variables due to four types of SME IPOs subscriptions which were market makers subscription, retail investor's subscription, non-retail investor's subscription and overall subscription. These all null hypotheses are given below as:

Main

- **H_{01}:** *There is no effect of key financials and non-financial disclosures on SMEs public offerings subscription.*

Set of Four null hypotheses

- **$H_{01(a)}$:** *There is no effect of key financials and non-financial disclosures on market makers subscriptions of SME IPOs.*
- **$H_{01(b)}$:** *There is no effect of key financials and non-financial disclosures on retail investors subscriptions of SME IPOs.*
- **$H_{01(c)}$:** *There is no effect of key financials and non-financial disclosures on non-retail investors subscriptions of SME IPOs.*
- **$H_{01(d)}$:** *There is no effect of key financials and non-financial disclosures on overall subscription of SMEs IPOs.*

All the set of four null hypotheses mentioned above were statistically analyzed and interpreted in the subsequent sections of this chapter.

4.2 Effect of key financials and non-financial disclosures on market makers subscription of SMEs public offerings

In this section the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{01(a)}$: *There is no effect of key financials and non-financial disclosures on market makers subscriptions of SME IPOs.*

The output of the regression analysis is given in table 4.1

Table 4.1: Output of regression between market makers subscription and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
Market Maker Subscription	0.065	3.437	0.000	(Constant)	(Constant)	-	1.031		48.25	0
				Company Type	Com_TY	Non Financial	-0.013	-0.072	-1.37	0.172
				Issue Size (Value)	Iss_Value	Non Financial	-0.001	-0.117	-1.44	0.152
				Lot Size (Shares)	Lot	Non Financial	-0.000003468	-0.102	-1.45	0.147
				Market Maker Reserve	Res_MM	Non Financial	0.00	0.40	3.363	0.001
				Net Issue of Shares	Iss_Net	Non Financial	-1.896E-08	-0.313	-2.4	0.017
				Firm Size	Fi_Si	Non Financial	0.00	0.08	1.272	0.204
				IB Success Rate	IB_Rate	Non Financial	0	-0.073	-1.4	0.163
				Listing Delay	Lis_Dly	Non Financial	0	-0.098	-1.68	0.094
				PBITM (%)	PBITM	Key Financial	0.002	0.635	4.148	0
				APATM (%)	APATM	Key Financial	-0.002	-0.576	-3.74	0

4.2.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 2.045 which were nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.284 which was more than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be rejected hence the residuals have constant variance.
- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the

null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.

- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

4.2.2 Analysis of multivariate regression model between market makers subscriptions of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (Market maker subscription) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggested the model of determining market makers subscription of SMEs public offerings.

$H_{01(a)}$: *There is no effect of key financials and non-financial disclosures on market makers subscriptions of SME IPOs.*

According to multiple regression output table 4.1, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 3.437 and 0.000 respectively at 5% significance level so the above given null hypothesis could not be accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on market makers subscription of SME IPOs.

As per table 4.1, the value of adjusted R square was calculated as 0.065 inferred that the model could determine the market makers subscription of SMEs public offerings up to 6.5% accuracy which was quite low but significant at 5% significance level and acceptable so the suggested

model to determine market markers subscription of SMEs public offerings through the key financials and non-financial disclosures is given as:

Market Maker Subscriptions = 1.031 - 0.031*(Com_TY) - 0.001*(Iss_Value) - $3.46*10^{-6}$*(Lot) + $4.09*10^{-7}$*(Res_MM) - $1.89*10^{-8}$*(Iss_Net) + $9.36*10^{-7}$*(Fi_Si) + 0.002*(PBITM) - 0.002*(APATM) … (4.1)

Where

Com_TY = Company Type; Non-Financial

Iss_Value = Issue Size (Value); Non-Financial

Lot = Lot Size (Shares); Non-Financial

Res_MM = Market Maker Reserve; Non-Financial

Iss_Net = Net Issue of Shares; Non-Financial

Fi_Si = Firm Size; Non-Financial

IB_Rate = IB Success Rate; Non-Financial

Lis_Dly = Listing Delay; Non-Financial

PBITM = PBITM (%); Key Financial

APATM = APATM (%); Key Financial

From the above model equation (4.1) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the market makers subscription of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the market markers subscription of SMEs IPOs according to model equation (4.1) was discussed in section 4.6.

4.3 Effect of key financials and non-financial disclosures on retail investors subscription of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{01(b)}$: *There is no effect of key financials and non-financial disclosures on retail investors subscriptions of SME IPOs.*

The output of the regression analysis is given in table 4.2

Table 4.2: Output of regression between retail investor's subscription and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
Retail Subscription	0.085	3.705	0.000	(Constant)	(Constant)		-5.816		-1.456	0.146
				Stock Exchange	ST_EX	Non Financial	6.764	0.165	3.019	0.003
				Lot Size (Shares)	Lot	Non Financial	0.001	0.094	1.609	0.109
				Net Issue of Shares	Iss_Net	Non Financial	-9.518E-07	-0.069	-1.3	0.194
				Type of Affiliation	Standalone	Non Financial	2.743	0.061	1.151	0.251
				Prior Market Returns	Pr_Mkt_Rtrn	Non Financial	0.449	0.193	3.546	0
				Prior Initial Returns	Pr_Ini_Rtrn	Non Financial	0.196	0.078	1.435	0.152
				IB Total Listings	IB_Tot	Non Financial	0.088	0.104	1.971	0.05
				Listing Delay	Lis_Dly	Non Financial	-0.032	-0.07	-1.305	0.193
				Firm Age	Age	Non Financial	0.239	0.103	1.957	0.051
				Debt-Equity Ratio	D/E	Key Financial	0.494	0.072	1.128	0.26
				CPM (%)	CPM	Key Financial	-0.085	-0.092	-1.439	0.151
				Return on Capital Employed	ROCE	Key Financial	0.093	0.109	1.87	0.062

4.3.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.900 which was nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.827 which was more than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be rejected hence the residuals have constant variance.

- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there is linear relationship and multivariate regression has been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

4.3.2 Analysis of multivariate regression model between retail investors subscriptions of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (Retail investors subscriptions) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining retail investors subscription of SMEs public offerings.

$H_{01(b)}$: *There is no effect of key financials and non-financial disclosures on retail investors subscriptions of SME IPOs.*

According to multiple regression output table 4.2, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 3.705 and 0.000 respectively at 5% significance level so the above given null hypothesis was not accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on retail investors subscription of SME IPOs.

As per table 4.2, the value of adjusted R square was calculated as 0.085 inferred that the model could determine the retail investors subscription of SMEs public offerings up to 8.5% accuracy

which was quite low but significant at 5% significance level and acceptable so the suggested model to determine retail investors subscription of SMEs public offerings through the key financials and non-financial disclosures is given as:

Retail Investors Subscriptions = -5.816 + 6.764*(ST_EX) + 0.001*(Lot) - 9.51*10^{-7}*(Iss_Net) + 2.743*(Standalone) + 0.449*(Pr_Mkt_Rtrn) + 0.196*(Pr_Ini_Rtrn) + 0.088*(IB_Tot) – 0.032*(Lis_Dly) + 0.239*(Age) + 0.494*(D/E) – 0.085*(CPM) + 0.093*(ROCE) … (4.2)

Where

ST_EX = Stock Exchange; Non-Financial

Lot = Lot Size (Shares); Non-Financial

Iss_Net = Net Issue of Shares; Non-Financial

Standalone = Stand Alone; Non-Financial

Pr_Mkt_Rtrn = Prior Market Returns; Non-Financial

Pr_Ini_Rtrn = Prior Initial Returns; Non-Financial

IB_Tot = IB Total Listings; Non-Financial

Lis_Dly = Listing Delay; Non-Financial

Age = Firm Age; Non-Financial

D/E = Debt-Equity Ratio; Key Financial

CPM = CPM (%); Key Financial

ROCE = Return on Capital Employed; Key Financial

From the above model equation (4.2) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the retail investor's subscriptions of SMEs public offerings. The detailed interpretation and contribution of each and every key

financial and non-financial disclosure which can determine the retail investors subscription of SMEs IPOs according to model equation (4.2) was discussed in section 4.6.

4.4 Effect of key financials and non-financial disclosures on non-retail investor's subscriptions of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{01(c)}$: *There is no effect of key financials and non-financial disclosures on non-retail investor's subscriptions of SME IPOs.*

The output of the regression analysis is given in table 4.3

Table 4.3: Output of regression between non-retail investor's subscriptions and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
Non Retail Subscription	0.065	4.058	0.000	(Constant)	(Constant)		-3.068		-0.73	0.464
				Stock Exchange	ST_EX	Non Financial	8.342	0.099	1.88	0.061
				Type of Affiliation	Standalone	Non Financial	6.245	0.068	1.257	0.21
				Prior Market Returns	Pr_Mkt_Rtrn	Non Financial	1.08	0.226	4.325	0
				IB Positive Listings	IB_Pos	Non Financial	0.13	0.069	1.326	0.186
				Debt-Equity Ratio	D/E	Key Financial	2.6	0.184	1.467	0.143
				Long Term Debt-Equity Ratio	L_D/E	Key Financial	-3.174	-0.123	-1.18	0.241
				Return on Capital Employed	ROCE	Key Financial	0.292	0.167	2.182	0.03
				Return on Net Worth	RONW	Key Financial	-0.138	-0.14	-1.55	0.123

4.4.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.933 which was nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.926 which was more than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be rejected hence the residuals have constant variance.

- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

4.4.2 Analysis of multivariate regression model between non-retail investors subscriptions of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (non-retail investors) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining non-retail investors subscription of SMEs public offerings.

$H_{01(c)}$: *There is no effect of key financials and non-financial disclosures on non-retail investor's subscriptions of SME IPOs.*

According to multiple regression output table 4.3, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 4.058 and 0.000 respectively at 5% significance level so the above given null hypothesis could not be accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on non-retail investors subscription of SME IPOs.

As per table 4.3, the value of adjusted R square was calculated as 0.065 inferred that the model could determine the non-retail investors subscription of SMEs public offerings up to 6.5%

accuracy which was quite low but significant at 5% significance level and acceptable so the suggested model to determine market markers subscription of SMEs public offerings through the key financials and non-financial disclosures is given as:

Non-Retail Investors Subscriptions = -3.068 + 8.342*(ST_EX) + 6.245*(Standalone) + 1.08*(Pr_Mkt_Rtrn) + 0.13*(IB_Pos) + 2.6*(D/E) – 3.174*(L_D/E) + 0.292*(ROCE) – 0.138*(RONW) … (4.3)

Where

ST_EX = Stock Exchange; Non-Financial

Standalone = Standalone; Non-Financial

Pr_Mkt_Rtrn = Prior Market Returns; Non-Financial

IB_Pos = IB Positive Listings; Non-Financial

D/E = Debt-Equity Ratio; Key Financial

L_D/E = Long Term Debt-Equity Ratio; Key Financial

ROCE = Return on Capital Employed; Key Financial

RONW = Return on Net Worth; Key Financial

From the above model equation (4.3) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the non-retail investor's subscription of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the non-retail investor's subscription of SMEs IPOs according to model equation (4.3) was discussed in section 4.6.

4.5 Effect of key financials and non-financial disclosures on overall subscriptions of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{01(d)}$: *There is no effect of key financials and non-financial disclosures on overall subscriptions of SME IPOs.*

The output of the regression analysis is given in table 4.4

Table 4.4: Output of regression between overall subscriptions and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
Overall Subscription	0.08	5.36	0.000	(Constant)	(Constant)		-2.752		-0.8	0.426
				Stock Exchange	ST_EX	Non Financial	6.242	0.112	2.138	0.033
				Offer Price	OP	Non Financial	-0.029	-0.072	-1.37	0.171
				Prior Market Returns	Pr_Mkt_Rtrn	Non Financial	0.639	0.202	3.729	0
				Prior Initial Returns	Pr_Ini_Rtrn	Non Financial	0.252	0.074	1.359	0.175
				IB Positive Listings	IB_Pos	Non Financial	0.115	0.093	1.79	0.074
				Firm Age	Age	Non Financial	0.201	0.063	1.223	0.222
				Return on Capital Employed	ROCE	Key Financial	0.139	0.12	2.231	0.026

4.5.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.903 which was nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.661 which is more than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be rejected hence the residuals have constant variance.
- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no

Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.

- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

4.5.2 Analysis of multivariate regression model between overall subscriptions of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (overall subscription) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining market makers subscription of SMEs public offerings.

$H_{01(d)}$: *There is no effect of key financials and non-financial disclosures on overall subscriptions of SME IPOs.*

According to multiple regression output table 4.4, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 5.36 and 0.000 respectively at 5% significance level so the above given null hypothesis was not accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on overall subscription of SME IPOs.

As per table 4.4, the value of adjusted R square was calculated as 0.08 inferred that the model could determine the overall subscription of SMEs public offerings up to 8% accuracy which was quite low but significant at 5% significance level and acceptable so the suggested model to determine overall subscription of SMEs public offerings through the key financials and non-financial disclosures is given as:

Overall Subscriptions = -2.752 + 6.242*(ST_EX) – 0.029*(OP) + 0.639*(Pr_Mkt_Rtrn) + 0.252*(Pr_Ini_Rtrn) + 0.115*(IB_Pos) + 0.201*(Age) + 0.139*(ROCE) … (4.4)

Where

ST_EX = Stock Exchange; Non-Financial

OP = Offer Price; Non-Financial

Pr_Mkt_Rtrn = Prior Market Returns; Non-Financial

Pr_Ini_Rtrn = Prior Initial Returns; Non-Financial

IB_Pos = IB Positive Listings; Non-Financial

Age = Firm Age; Non-Financial

ROCE = Return on Capital Employed; Key Financial

From the above model equation (4.4) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the overall subscription of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the overall subscription of SMEs IPOs according to model equation (4.4) was discussed in section 4.6.

4.6 Conclusion and summary

This section describes the output of backward step wise multiple regression models applied to study the effect of key-financials and non-financial disclosures on different types of SMEs IPOs subscriptions which are given as:

- Table 4.1 shows the output of regression between market makers subscription and key financials as well as non-financial disclosures.
- Table 4.2 shows the output of regression between retail investor's subscription and key financials as well as non-financial disclosures.
- Table 4.3 shows the output of regression between non-retail investor's subscriptions and key financials as well as non-financial disclosures.
- Table 4.4 shows the output of regression between overall subscriptions and key financials as well as non-financial disclosures.

Every table output as mentioned above has been interpreted and summarized separately according to the different types of SMEs IPOs subscriptions which are given here below.

- **Market makers subscription of SMEs public offerings:** From the table 4.1, this has been observed that the variables Market Maker Reserve, Net Issue of Shares, PBITM (%) and APATM (%) significantly affect the market makers subscription of SMEs IPOs at maximum of 10% significance level. Market Maker Reserve and Net Issue of Shares belongs to non-financial disclosures on the other side PBITM (%) and APATM (%) belong to key-financials. Market Maker Reserve positively affects and Net Issue of Shares negatively affects the market makers subscription of SMEs IPOs whereas PBITM (%) positively affects and APATM (%) negatively affects the market makers subscription of SMEs IPOs. As market makers have to subscribe at least 100% of theirs shares which are kept as reserved for them so this could be concluded that if more proportion will be reserved for market markers by reducing net issue size then the market makers subscription will be more and it may go beyond 100% if the gross profit margins (PBITM) of the SMEs would be high but reverse may be true for net profit margins (APATM).
- **Retail investor's subscription of SMEs public offerings:** From the table 4.2, this has been observed that the variables Stock Exchange, Prior Market Returns, IB Total Listings, Firm Age and Return on Capital Employed significantly affect the retail investor's subscription of SMEs IPOs at maximum of 10% significance level. Stock Exchange, Prior Market Returns, IB Total Listings and Firm Age belong to non-financial disclosures on the other side Return on Capital Employed belongs to key-financials. Stock exchange variable is a dummy variable that indicates that the retail investors want to subscribe more if the SME stock is listed on SME platform of NSE named as NSE EMERGE. The variable Prior Market Returns directly affects retail investor's subscription of SME IPOs and also indicates that the retail investor's subscription would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. The variable IB Total Listings reveals the role of investment banker in SMEs IPOs subscription which indicates that number of number of IPOs handled by investment banker during the time period prior to the SME IPO affects positively retail investors subscription of SME IPOs so the more the number of IPOs handled by investment banker, the retail investors subscription of IPO may be high because investors may think that investment banker might get better experience in making the IPOs

successful. The variable Firm Age also contributes positively in the retail investor's subscription of SMEs IPOs indicates that older the SME firm the chances of getting public offerings issue subscribed would be more by retail investors. The only variable Return on Capital Employed which is related to key-financials also influences the retail investors subscription of SMEs IPOs directly states that the retail investors would prefer to subscribe those SME IPOs having higher returns on invested capital.

- **Non-retail investor's subscription of SMEs public offerings:** From the table 4.3, this has been observed that the variables Stock Exchange, Prior Market Returns and Return on Capital Employed significantly affect then non-retail investor's subscription of SMEs IPOs at maximum of 10% significance level. Stock Exchange and Prior Market Returns belong to non-financial disclosures on the other side Return on Capital Employed belongs to key-financials. Stock exchange variable is a dummy variable that indicates that the non-retail investors want to subscribe more if the SME stock is listed on SME platform of NSE named as NSE EMERGE. The variable Prior Market Returns directly affects non-retail investor's subscription of SME IPOs and also indicates that the non-retail investor's subscription would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. The only variable Return on Capital Employed which is related to key-financials also influences the non-retail investors subscription of SMEs IPOs directly states that the non-retail investors would prefer to subscribe those SME IPOs having higher returns on invested capital.
- **Overall subscription of SMEs public offerings:** From the table 4.4, this has been observed that the variables Stock Exchange, Prior Market Returns, IB Positive Listings and Return on Capital Employed significantly affect the overall subscription of SMEs IPOs at maximum of 10% significance level. Stock Exchange, Prior Market Returns and IB Positive Listings belong to non-financial disclosures on the other side Return on Capital Employed belongs to key-financials. Stock exchange variable is a dummy variable that indicates that the overall investors want to subscribe more if the SME stock is listed on SME platform of NSE named as NSE EMERGE. The variable Prior Market Returns directly affects overall subscription of SME IPOs and also indicates that the overall subscription would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. The variable IB Positive Listings reveals

the role of investment banker in subscription of SMEs IPOs which indicates that number of IPOs handled by investment banker in which IPO is underpriced or provided positive return to the investor during the time period prior to the SME IPO affects positively overall subscription of SME IPOs so the more the number of IPOs provided positive returns handled by investment banker higher would be the overall subscription of IPOs because investors may think that investment banker might get better experience in making the IPOs successful and getting positive listing. The only variable Return on Capital Employed which is related to key-financials also influences the overall subscription of SMEs IPOs directly states that the overall investors would prefer to subscribe those SME IPOs having higher returns on invested capital.

From the discussion of above points related to SME IPOs which are subscribed by different types of investors infers that key-financials and non-financial disclosures may be used to predict the subscriptions of SMEs public offerings significantly up to some extent for upcoming SME IPOs. The variables Stock Exchange, Prior Market Returns, IB Total Listings and Firm Age belong to non-financial disclosures and the variable Return on Capital Employed belongs to key-financials would be mainly used to predict the SMEs IPOs subscriptions related to investors other that market makers.

CHAPTER 5

EFFECT OF KEY FINANCIALS AND NON-FINANCIAL DISCLOSURES ON ISSUE PRICE OF SME PUBLIC OFFERINGS

This chapter tried to explore the relationship and effect of key financials and non-financial information on issue price of small medium enterprises (SMEs) public offerings. The price at which securities are issued by the firms to their initial investors is called issue price. Firms generally follow book building (BB) and fixed price (FP) methods to bring the public issue in the market, In fixed price (FP) method issue price is same as offer price but in book building method offer price has price range in which the gap between minimum and maximum prices must not exceed 20% and from this offer price range final issue price is determined. Firms also do formally disclose their key financial and non-financial information to the public through prospectus document before the opening of public offerings subscription. This chapter studied in detail the contribution of different types of key financials and non-financial disclosures in determining issue prices of SMEs public offerings. The below given second objective of the research study was studied by testing statistically the below mentioned null hypothesis.

Objective 2: To identify key financials and non-financial disclosures contributing in determining issue price of SME public offerings.

Null Hypothesis H_{02}: *Key financials and non-financial disclosures do not contribute in determining issue price of SME public offerings.*

This chapter has divided into three sections to explain the progress of achievement of the objective of the research study under this chapter. Section 5.1 discussed about the research methodology to explore the relationship between types of dependent variable related to the SMEs IPOs issue price and independent variables related to the key financials and non-financial disclosures. Section 5.2 presented the effect of key financials and non-financial disclosures on determining issue price of SMEs IPOs. Section 5.3 described the overall conclusion and summary related to analysis of the respective objective of the research study under this chapter.

5.1 Methodology

In this research 352 SME IPOs offering common equity securities from time period June 2012 to March 2021 were taken as sample. Secondary data related to issue prices of SME IPOs were

collected from basis of allotment and prospectus documents of these 352 SME IPOs. These all issue prices of SME IPOs were taken as dependent variables to test the hypothesis of objective 2 of the research thesis under this chapter by using multivariate regression. Data related to key financials and non-financial variables were collected from the prospectus documents of these 352 SME IPOs, financial statements, Capitaline data base and other useful and reliable sources. There were total 47 variables related to key financials and non-financial disclosures taken as independent variables out of which 33 variables were related to non-financial disclosures construct and 14 variables were made the key financials construct for the study of respective objective under this chapter. These all 47 variables consisting of key financials and non-financial disclosure constructs were taken as the independent variables to statistically test the null hypothesis related to respective objective under this chapter by using multivariate regression technique. List of all Key-Financials and Non-Financial disclosures which were used for the studying of respective objective under this chapter can be obtained from tables 3.1 and 3.2 respectively.

Multivariate backward stepwise regression was used to study the effect of independent variables (Key-Financials and Non-Financial Disclosures) on the dependent variables (Issue price SME IPOs) by taking care the basic conditions of multivariate regression that are given as:

- Dependent variables must be continuous in nature.
- No autocorrelation should exist among the residuals which can be checked through the Durbin Watson test.
- Linear relationship must be there between dependent and independent variables.
- Variance among the residuals must be homogeneous which can be tested through Breush Pagan test.
- No Multicollinearity should be there between the independent variables and this can be analyzed through tolerance limits and variance inflation factor (VIF) value.
- There should be normality in the residual values which can be tested through Kolmogorov-Smirnov and Shapiro-Wilk test.

5.2 Effect of key financials and non-financial disclosures on issue price of SMEs public offerings

In this section the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

H_{02} : *Key financials and non-financial disclosures do not contribute in determining issue price of SME public offerings.*

The output of the regression analysis is given in table 5.1

Table 5.1: Output of regression between issue price and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
Issue Price	0.695	55.021	0.000	(Constant)	(Constant)	-	28.987		2.351	0.019
				Issue Size (Value)	Iss_Value	Non Financial	5.364	0.894	19.48	0
				Lot Size (Shares)	Lot	Non Financial	0.002	0.057	1.419	0.157
				Net Issue of Shares	Iss_Net	Non Financial	0.000	-0.685	-6.31	0
				Shares Allotted to Market Makers	Allot_MM	Non Financial	0.000	0.18	2.104	0.036
				Shares Allotted to Retail Investors	Allot_R	Non Financial	0.000	0.081	1.581	0.115
				Shares Allotted to Non Retail Investors	Allot_NR	Non Financial	0.000	-0.238	-3.04	0.003
				Market Makers %age Allocation	MM_%Allot	Non Financial	-5.420	-0.146	-2.82	0.005
				Non Retail Investors %age Allocation	NR_%Allot	Non Financial	0.766	0.265	4.154	0
				Prior Initial Returns	Pr_Ini_Rtrn	Non Financial	0.381	0.044	1.462	0.145
				IB Positive Listings	IB_Pos	Non Financial	-0.192	-0.061	-1.81	0.071
				IB Success Rate	IB_Rate	Non Financial	0.245	0.075	2.308	0.022
				Long Term Debt-Equity Ratio	L_D/E	Key Financial	-2.397	-0.056	-1.7	0.09
				Inventory Turnover	Inv_Turn	Key Financial	-0.021	-0.04	-1.34	0.18
				Interest Cover Ratio	Int_Cov	Key Financial	0.147	0.064	2.093	0.037
				PBDTM (%)	PBDTM	Key Financial	0.360	0.126	3.778	0

5.2.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.795 which was lying in the range from 1.5 to 2.5 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.000 which is less than 0.05 at 95% confidence interval indicated that the null hypothesis of

homogeneity of variance among residuals could not be accepted hence the residuals have not constant variance.

- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it was assumed that there was linear relationship and multivariate regression has been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

5.2.2 Analysis of multivariate regression model between issue price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (Issue price of SME IPOs) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining issue price of SMEs public offerings.

H_{02}: *Key financials and non-financial disclosures do not contribute in determining issue price of SME public offerings.*

According to multiple regression output table 5.1, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 55.021 and 0.000 respectively at 5% significance level so the above given null hypothesis could not be accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on issue price of SME IPOs.

As per table 5.1, the value of adjusted R square was calculated as 0.695 inferred that the model could determine the issue price of SMEs public offerings up to 69.5% accuracy which was quite high and significant at 5% significance level and acceptable so the suggested model to determine IPO issue price of SMEs public offerings through the key financials and non-financial disclosures is given as:

IPO Issue Price = 28.987 + 5.364*(Iss_Value) + 0.002*(Lot) – $3.226*10^{-5}$*(Iss_Net) + $6.189*10^{-6}$*(Allot_R) – $1.579*10^{-5}$*(Allot_NR) – 5.420*(MM_%Allot) + 0.766*(NR_%Allot) + 0.381*(Pr_Ini_Rtrn) – 0.192*(IB_Pos) + 0.245*(IB_Rate) – 2.379*(L_D/E) - 0.021*(Inv_Turn) + 0.147*(Int_Cov) + 0.360*(PBDTM) … (5.1)

Where

Iss_Value = Issue Size (Value); Non-Financial

Lot = Lot Size (Shares); Non-Financial

Iss_Net = Net Issue of Shares; Non-Financial

Allot_MM = Shares Allotted to Market Makers; Non-Financial

Allot_R = Shares Allotted to Retail Investors; Non-Financial

Allot_NR = Shares Allotted to Non Retail Investors; Non-Financial

MM_%Allot = Market Makers %age Allocation; Non-Financial

NR_%Allot = Non Retail Investors %age Allocation; Non-Financial

Pr_Ini_Rtrn = Prior Initial Returns; Non-Financial

IB_Pos = IB Positive Listings; Non-Financial

IB_Rate = IB Success Rate; Non-Financial

L_D/E = Long Term Debt-Equity Ratio; Key Financials

Inv_Turn = Inventory Turnover; Key Financials

Int_Cov = Interest Cover Ratio; Key Financials

PBDTM = PBDTM (%); Key Financials

From the above model equation (5.1) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the IPO issue price of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the issue price of SMEs IPOs according to model equation (5.1) was discussed in section 5.3.

5.3 Conclusion and summary

This section describes the output of backward step wise multiple regression models applied to study the effect of key-financials and non-financial disclosures on issue prices of SMEs IPOs which is given in table 5.1

Table 5.1 output as mentioned above has been interpreted and summarized as given below.

Issue price of SMEs public offerings: From the table 5.1, this has been observed that the variables Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Non-Retail Investors %age Allocation, IB Success Rate, Long Term Debt-Equity Ratio, Interest Cover Ratio and PBDTM (%) significantly affect the issue price of SMEs IPOs at maximum of 10% significance level. The variables Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Non-Retail Investors %age Allocation and IB Success Rate belong to non-financial disclosures on the other side the variables Long Term Debt-Equity Ratio, Interest Cover Ratio and PBDTM (%) belong to key-financials. Issue Size (Value) confers positively in the issue price of SMEs IPOs manifests that more the value of the total issue size issue price would be valued higher. Net Issue of Shares contributes negatively in the determination of issue price of SME IPOs reveals that if the total number of shares available for investors other than market makers is high then issue price would be valued lower due to lower gap of demand and supply. Market Makers %age Allocation negatively influences the issue price of SME IPOs states that more would be reserve of shares for market makers less would be the issue price because market makers have to be allotted their all reserved securities and if more number of shares would be reserved for market makers then less number of shares would be available for other types of

investors who are responsible to bring the significant demand and hence high issue price. The variable Non-Retail Investors %age Allocation contributes directly in determining issue price of SME IPOs means that more percentage allocation to non-retail investors brings the issue price of SME IPOs on higher side because the buying capacity of non-retail investors is comparatively higher than retail investors as it includes high net worth individuals and institutional investors who can buy in bulk and create more positive sentiment for the SMEs IPOs. IB Success Rate is the percentage of IPOs which are underpriced or provided positive returns from the total number of IPOs handled by investment banker during the time period prior to SME IPOs and this IB Success Rate positively links with issue price of SME IPOs indicates that capability of investment banker to bring positive listing of SME IPOs influences the issue price of IPOs directly. Long Term Debt-Equity Ratio imply oppositely in the determination of issue price of SMEs IPOs infers that SMEs having higher long term debt capital compared to equity capital may not expect premium price for the securities offered to the public. The key-financial Interest Cover Ratio has positive coefficient in determining issue price of SMEs IPOs ascertains that the SMEs those having high capacity to full its long term debt obligation can expect more premium on the issue price for the securities offered to the public and same is true for key-financial PBDTM (%) which is the profit margin of adjusted gross profit over sales.

From the discussion of above points related to the valuations of SME IPOs issue prices derives that key-financials and non-financial disclosures may be used to estimate the value of issue price of SMEs public offerings significantly up to great and significant extent for upcoming SME IPOs. The variables Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Non-Retail Investors %age Allocation and IB Success Rate belong to non-financial disclosures and the variables Long Term Debt-Equity Ratio, Interest Cover Ratio and PBDTM (%) belong to key-financials would be mainly used to do the valuations of SMEs IPOs issue and offer prices which would be helpful in better decision making for SME firms as capital raisers and investors as capital providers from Indian capital market.

CHAPTER 6

EFFECT OF KEY FINANCIALS AND NON-FINANCIAL DISCLOSURES ON LISTING DAY PERFORMANCE OF SME PUBLIC OFFERINGS

This chapter tried to explore the relationship and effect of key financials and non-financial information on listing day performance of small medium enterprises (SMEs) public. There are investors who are not able to get the securities which are offered publically during the initial allotment period so those investors try to buy those from the stock exchanges on the listing day and those investors who have already been allotted securities try to sell on the listing day to book their expected profit so listing day prices of securities may have variation from the issue price. Firms formally disclose their key financial and non-financial information to the public through prospectus document before the opening of public offerings subscription. This chapter studied in detail the contribution of different types of key financials and non-financial disclosures in determining listing day performance of SMEs public offerings. The below given third objective of this research study was studied by testing statistically the below mentioned null hypothesis.

Objective 3: To study the determinants behind listing day performance of SME public offerings.

Null Hypothesis H_{03}: *Key financials and non-financial disclosures have no role in determining listing day performance of SME public offerings.*

This chapter was divided into four sections to explain the progress of achievement of the objective under the research study for this chapter. Section 6.1 discussed about the research methodology to explore the relationship between types of dependent variables related to the SMEs IPOs listing day prices and independent variables related to the key financials and non-financial disclosures. Section 6.2 presented the effect of key financials and non-financial disclosures on determining listing day opening price of SMEs IPOs. Section 6.3 exhibited the effect of factors related to key financials and non-financial disclosures on the listing day closing price of SMEs IPOs. Section 6.4 described the overall conclusion and summary related to analysis of objective of the research study under this chapter.

6.1 Methodology

In this research 352 SME IPOs offering common equity securities from time period June 2012 to March 2021 were taken as sample. Secondary data related to listing day opening price and listing

day closing price of these 352 SME IPOs were collected from two SME stock exchanges of India which are BSE SME and NSE EMERGE. These all types of listing day prices of SME IPOs were taken as dependent variables to test the hypothesis of objective 3 of the research thesis under this chapter by using multivariate regression. Data related to key financials and non-financial variables were collected from the prospectus documents of these 352 SME IPOs, financial statements, Capitaline data base and other useful and reliable sources. There were total 48 variables related to key financials and non-financial disclosures taken as independent variables out of which 34 variables were related to non-financial disclosures construct and 14 variables were made the key financials construct for the study of respective objective under this chapter. These all 48 variables consisting of key financials and non-financial disclosure constructs were taken as the independent variables to statistically test the null hypothesis related to respective objective under this chapter by using multivariate regression technique. List of all Key-Financials and Non-Financial disclosures which were used for the studying of respective objective under this chapter can be obtained from tables 3.1 and 3.2 respectively.

Multivariate backward stepwise regression was used to study the effect of independent variables (Key-Financials and Non-Financial Disclosures) on the dependent variables (Listing day opening and closing prices) by taking care the basic conditions of multivariate regression that are given as:

- Dependent variables must be continuous in nature.
- No autocorrelation should exist among the residuals which can be checked through the Durbin Watson test.
- Linear relationship must be there between dependent and independent variables.
- Variance among the residuals must be homogeneous which can be tested through Breush Pagan test.
- No Multicollinearity should be there between the independent variables and this can be analyzed through tolerance limits and variance inflation factor (VIF) value.
- There should be normality in the residual values which can be tested through Kolmogorov-Smirnov and Shapiro-Wilk test.

To test statistically the main null hypothesis related to respective research objective under this chapter had further been divided into set of two null hypotheses according to two dependent

variables due to two types of SME IPOs listing day prices which were listing day opening price and listing day closing price. These all null hypotheses are given below as:

Main

- **H_{03}:** *Key financials and non-financial disclosures have no role in determining listing day performance of SME public offerings.*

Set of two null hypotheses

- **$H_{03(a)}$:** *Key financials and non-financial disclosures have no role in determining listing day opening price of SME public offerings.*
- **$H_{03(b)}$:** *Key financials and non-financial disclosures have no role in determining listing day closing price of SME public offerings.*

All the set of two null hypotheses mentioned above were statistically analyzed and interpreted in the subsequent sections of this chapter.

6.2 Effect of key financials and non-financial disclosures on listing day opening price of SMEs public offerings

In this section the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{03\ (a)}$: *Key financials and non-financial disclosures have no role in determining listing day opening price of SME public offerings.*

The output of the regression analysis is given in table 6.1

Table 6.1: Output of regression between listing day opening prices and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
Listing Day Opening Price	0.988	1453.965	0.000	(Constant)	(Constant)	-	-3.064		-0.891	0.374
				Retail Subscription	Subs_R	Non Financial	-0.045	-0.013	-1.003	0.317
				Overall Subscription	Subs_O	Non Financial	0.073	0.028	2.221	0.027
				Stock Exchange	ST_EX	Non Financial	-0.847	-0.006	-0.919	0.359
				Issue Type	Iss_TY	Non Financial	-2.431	-0.011	-1.664	0.097
				Company Type	Com_TY	Non Financial	-1.607	-0.011	-1.865	0.063
				Issue Size (Value)	Iss_Value	Non Financial	-0.106	-0.018	-1.411	0.159
				Lot Size (Shares)	Lot	Non Financial	0	-0.009	-1.113	0.266
				Market Maker Reserve	Res_MM	Non Financial	1.46E-05	0.018	1.654	0.099
				Shares Allotted to Retail Investors	Allot_R	Non Financial	-9.78E-07	-0.013	-1.486	0.138
				Shares Allotted to Non Retail Investors	Allot_NR	Non Financial	-7.01E-07	-0.01	-1.116	0.265
				Market Makers %age Allocation	MM_%Allot	Non Financial	0.575	0.015	2.198	0.029
				Offer Price	OP	Non Financial	1.007	0.997	102.336	0
				Board Size	Board	Non Financial	0.567	0.011	1.777	0.077
				Type of Affiliation	Standalone	Non Financial	-1.981	-0.013	-1.863	0.063
				No of Group entites	No_Grp	Non Financial	-0.119	-0.008	-1.156	0.248
				Prior Market Returns	Pr_Mkt_Rtrn	Non Financial	0.088	0.011	1.697	0.091
				Prior Market Volatility	Pr_Mkt_Vlty	Non Financial	1.127	0.006	0.984	0.326
				IB Total Listings	IB_Tot	Non Financial	-0.004	-0.001	-0.201	0.841
				IB Success Rate	IB_Rate	Non Financial	0.052	0.016	2.429	0.016
				Return on Capital Employed	ROCE	Key Financial	0.021	0.007	1.052	0.293

6.2.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.960 which was nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 1.000 which was more than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be rejected hence the residuals have constant variance.
- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual

values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.

- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.

- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

6.2.2 Analysis of multivariate regression model between listing day opening price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (Listing day opening price) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining listing day opening price of SMEs public offerings.

$H_{03\ (a)}$: *Key financials and non-financial disclosures have no role in determining listing day opening price of SME public offerings.*

According to multiple regression output table 6.1, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 1453.965 and 0.000 respectively at 5% significance level so the above given null hypothesis could not be accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on listing day opening price of SME IPOs.

As per table 6.1, the value of adjusted R square was calculated as 0.988 inferred that the model could determine the listing day opening price of SMEs public offerings up to 98.8% accuracy which was very high as well as significant at 5% significance level and acceptable so the

suggested model to determine listing day opening price of SMEs public offerings through the key financials and non-financial disclosures is given as:

Listing Day Opening Price = -3.064 – 0.045*(Subs_R) + 0.073*(Subs_O) – 0.847*(ST_EX) – 2.431*(Iss_TY) – 1.607*(Com_TY) – 0.106*(Iss_Value) + $1.46*10^{-5}$*(Res_MM) – $9.78*10^{-7}$*(Allot_R) – $7.01*10^{-7}$*(Allot_NR) + 0.575*(MM_%Allot) + 0.007*(OP) + 0.567*(Board) – 1.981*(Standalone) – 0.119*(No_Grp) + 0.088*(Pr_Mkt_Rtrn) + 1.127*(Pr_Mkt_Vlty) – 0.004*(IB_Tot) + 0.052*(IB_Rate) + 0.021*(ROCE) … (6.1)

Where

Subs_R = Retail Subscription; Non-Financial

Subs_O = Overall Subscription; Non-Financial

ST_EX = Stock Exchange; Non-Financial

Iss_TY = Issue Type; Non-Financial

Com_TY = Company Type; Non-Financial

Iss_Value = Issue Size (Value); Non-Financial

Lot = Lot Size (Shares); Non-Financial

Res_MM = Market Maker Reserve; Non-Financial

Allot_R = Shares Allotted to Retail Investors; Non-Financial

Allot_NR = Shares Allotted to Non Retail Investors; Non-Financial

MM_%Allot = Market Makers %age Allocation; Non-Financial

OP = Offer Price; Non-Financial

Board = Board Size; Non-Financial

Standalone = Standalone; Non-Financial

No_Grp = No of Group entites; Non-Financial

Pr_Mkt_Rtrn = Prior Market Returns; Non-Financial

Pr_Mkt_Vlty = Prior Market Volatility; Non-Financial

IB_Tot = IB Total Listings; Non-Financial

IB_Rate = IB Success Rate; Non-Financial

ROCE = Return on Capital Employed; Key-Financial

From the above model equation (6.1) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the listing day opening price of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the listing day opening price of SMEs IPOs according to model equation (6.1) was discussed in section 6.4.

6.3 Effect of key financials and non-financial disclosures on listing day closing price of SMEs public offerings

In this section the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{03(b)}$: *Key financials and non-financial disclosures have no role in determining listing day closing price of SME public offerings..*

The output of the regression analysis is given in table 6.2

Table 6.2: Output of regression between listing day closing price and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
Listing Day Closing Price	0.986	866.002	0.000	(Constant)	(Constant)	-	3.838		0.562	0.574
				Market Maker Subscription	Subs_MM	Non Financial	-6.505	-0.008	-1.221	0.223
				Retail Subscription	Subs_R	Non Financial	-0.072	-0.021	-1.448	0.149
				Overall Subscription	Subs_O	Non Financial	0.112	0.044	3.081	0.002
				Stock Exchange	ST_EX	Non Financial	-1.749	-0.012	-1.704	0.089
				Issue Type	Iss_TY	Non Financial	-1.997	-0.009	-1.276	0.203
				Company Type	Com_TY	Non Financial	-2.084	-0.015	-2.141	0.033
				Issue Size (Value)	Iss_Value	Non Financial	-0.185	-0.03	-2.000	0.046
				Lot Size (Shares)	Lot	Non Financial	0	-0.006	-0.665	0.507
				Net Issue of Shares	Iss_Net	Non Financial	1.83E-06	0.038	2.179	0.03
				Shares Allotted to Retail Investors	Allot_R	Non Financial	-1.43E-06	-0.018	-1.666	0.097
				Shares Allotted to Non Retail Investors	Allot_NR	Non Financial	-8.48E-07	-0.013	-0.729	0.466
				Market Makers %age Allocation	MM_%Allot	Non Financial	0.602	0.016	1.674	0.095
				Non Retail Investors %age Allocation	NR_%Allot	Non Financial	0.029	0.01	0.713	0.477
				Offer Price	OP	Non Financial	1.024	1.008	85.759	0
				Firm Size	Fi_Si	Non Financial	0	-0.011	-1.438	0.151
				Independent Directors	Ind_Dir	Non Financial	1.315	0.013	1.580	0.115
				Type of Affiliation	Standalone	Non Financial	-1.557	-0.01	-1.324	0.186
				No of Group entites	No_Grp	Non Financial	-0.117	-0.008	-1.025	0.306
				Prior Market Volatility	Pr_Mkt_Vlty	Non Financial	0.931	0.005	0.740	0.46
				IB Success Rate	IB_Rate	Non Financial	0.07	0.021	3.142	0.002
				Firm Age	Age	Non Financial	-0.045	-0.006	-0.836	0.404
				Board Independence	Brd_Indp	Non Financial	-0.09	-0.013	-1.484	0.139
				Current Ratio	CR	Key Financial	-0.029	-0.007	-1.027	0.305
				Fixed Assets Turnover	FA_Turn	Key Financial	0.001	0.007	1.108	0.269
				Debtors Turnover	Deb_Turn	Key Financial	-0.003	-0.005	-0.739	0.46
				PBITM (%)	PBITM	Key Financial	-0.045	-0.019	-1.066	0.287
				PBDTM (%)	PBDTM	Key Financial	0.054	0.018	1.021	0.308
				Return on Capital Employed	ROCE	Key Financial	0.022	0.007	1.002	0.317

6.3.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.978 which was nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 1.000 which was more than 0.05 at 95% confidence interval indicated that the null hypothesis

of homogeneity of variance among residuals could not be rejected hence the residuals have constant variance.

- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

6.3.2 Analysis of multivariate regression model between listing day closing price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (Listing day closing price) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining listing day closing price of SMEs public offerings.

$H_{03(b)}$: *Key financials and non-financial disclosures have no role in determining listing day closing price of SME public offerings..*

According to multiple regression output table 6.2, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 866.002 and 0.000 respectively at 5% significance level so the above given null hypothesis could not be accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on listing day closing price of SME IPOs.

As per table 6.2, the value of adjusted R square was calculated as 0.986 inferred that the model could determine the listing day closing price of SMEs public offerings up to 98.6% accuracy which was very high and significant at 5% significance level and acceptable so the suggested model to determine listing day closing price of SMEs public offerings through the key financials and non-financial disclosures is given as:

Listing Day Closing Price = 3.838 - 6.505*(Subs_MM) - 0.072*(Subs_R) + 0.112*(Subs_O) - 1.749*(ST_EX) - 1.997*(Iss_TY) - 2.084*(Com_TY) - 0.185*(Iss_Value) + $1.828*10^{-6}$*(Iss_Net) – $1.426*10^{-6}$*(Allot_R) – $8.478*10^{-7}$*(Allot_NR) + 0.602*(MM_%Allot) + 0.029*(NR_%Allot) + 1.024*(OP) + 0*(Fi_Si) + 1.315*(Ind_Dir) - 1.557*(Standalone) - 0.117*(No_Grp) + 0.931*(Pr_Mkt_Vlty) + 0.07*(IB_Rate) - 0.045*(Age) - 0.09*(Brd_Indp) - 0.029*(CR) + 0.001*(FA_Turn) - 0.003*(Deb_Turn) - 0.045*(PBITM) + 0.054*(PBDTM) + 0.022*(ROCE) … (6.2)

Where

Subs_MM = Market Maker Subscription; Non-Financial

Subs_R = Retail Subscription; Non-Financial

Subs_O = Overall Subscription; Non-Financial

ST_EX = Stock Exchange; Non-Financial

Iss_TY = Issue Type; Non-Financial

Com_TY = Company Type; Non-Financial

Iss_Value = Issue Size (Value); Non-Financial

Lot = Lot Size (Shares); Non-Financial

Iss_Net = Net Issue of Shares; Non-Financial

Allot_R = Shares Allotted to Retail Investors; Non-Financial

Allot_NR = Shares Allotted to Non Retail Investors; Non-Financial

MM_%Allot = Market Makers %age Allocation; Non-Financial

NR_%Allot = Non Retail Investors %age Allocation; Non-Financial

OP = Offer Price; Non-Financial

Fi_Si = Firm Size; Non-Financial

Ind_Dir = Independent Directors; Non-Financial

Standalone = Standalone; Non-Financial

No_Grp = No of Group entites; Non-Financial

Pr_Mkt_Vlty = Prior Market Volatility; Non-Financial

IB_Rate = IB Success Rate; Non-Financial

Age = Firm Age; Non-Financial

Brd_Indp = Board Independence; Non-Financial

CR = Current Ratio; Key-Financial

FA_Turn = Fixed Assets Turnover; Key-Financial

Deb_Turn = Debtors Turnover; Key-Financial

PBITM = PBITM (%); Key-Financial

PBDTM = PBDTM (%); Key-Financial

ROCE = Return on Capital Employed; Key-Financial

From the above model equation (6.2) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the listing day closing price of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the listing day closing price of SMEs IPOs according to model equation (6.2) was discussed in section 6.4.

6.4 Conclusion and summary

This section describes the output of backward step wise multiple regression models applied to study the effect of key-financials and non-financial disclosures on listing day price performances of SMEs IPOs which is given as:

- Table 6.1 shows the output of regression between listing day opening price and key financials as well as non-financial disclosures.
- Table 6.2 shows the output of regression between listing day closing price and key financials as well as non-financial disclosures.

Every table output as mentioned above has been interpreted and summarized separately according to the listing day opening and closing prices of SMEs IPOs which are given here below.

Listing day opening price of SMEs public offerings: From the table 6.1, this has been observed that the variables Overall Subscription, Issue Type, Company Type, Market Makers %age Allocation, Offer Price, Board Size, Standalone, Prior Market Returns and IB Success Rate affect the listing day opening price of SMEs IPOs at maximum of 10% significance level. These all significant variables Overall Subscription, Issue Type, Company Type, Market Makers %age Allocation, Offer Price, Board Size, Standalone, Prior Market Returns and IB Success Rate belong to non-financial disclosures on the other side no variable belong to key-financials which contribute significantly in determining the valuation of listing day opening price. The Overall Subscription of SMEs IPOs determines the value of listing day opening price of SME IPOs directly which means that the higher IPOs overall subscription leads to higher opening price of stock on the listing day. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues on the opening of SME stocks on the day of listing. Company Type variable is a dummy variable deduce that secondary market investors of SME stocks give more preference SMEs stocks having services or trade types of business operations as compared to SMEs having manufacturing or production types of business on the opening of SME stocks on the day of listing. Market Makers %age Allocation positively influences the listing day opening price of SME IPOs states that more would be reserve of shares for market

makers high would be the listing day opening price because market makers have to provide liquidity for that particular stock in the secondary so more allotment to market makers more liquidity for the stock in the secondary market and secondary investors may easily exit and enter. The variable Offer Price contributes directly in determining listing day opening price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the listing day opening price of SME IPOs on higher side. Board Size contributes positively in the determination of listing day opening price of SME IPOs reveals that if the total number of directors in the firm's board is high then listing day opening price would be valued higher may be due to secondary investor's perception of better and effective decision making capacity. Standalone variable is a dummy variable infers that secondary market investors of SME stocks give more preference SME companies having affiliation with other companies or group of companies as compared to SME companies having no affiliation on the opening of SME stocks on the day of listing. The variable Prior Market Returns directly affects the listing day opening price of SME IPOs and also indicates that the listing day opening price would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. IB Success Rate is the percentage of IPOs which are underpriced or provided positive returns from the total number of IPOs handled by investment banker during the time period prior to SME IPOs and this IB Success Rate positively links with listing day opening price of SME IPOs indicates that capability of investment banker to bring positive listing of SME IPOs influences the listing day opening price of IPOs directly.

Listing day closing price of SMEs public offerings: From the table 6.2, this has been observed that the variables Overall Subscription, Stock Exchange, Company Type, Issue Size (Value), Net Issue of Shares, Shares Allotted to Retail Investors, Market Makers %age Allocation, Offer Price and IB Success Rate affect the listing day closing price of SMEs IPOs at maximum of 10% significance level. These all significant variables Overall Subscription, Stock Exchange, Company Type, Issue Size (Value), Net Issue of Shares, Shares Allotted to Retail Investors, Market Makers %age Allocation, Offer Price and IB Success belong to non-financial disclosures on the other side no variable belong to key-financials which contribute significantly in determining the valuation of listing day closing price. The Overall Subscription of SMEs IPOs determines the value of listing day closing price of SME IPOs directly which means that the higher IPOs overall subscription leads to higher closing price of SMEs stocks on the listing day.

Stock exchange variable is a dummy variable that indicates that the secondary market investors of SMEs stocks prefer to trade SMEs IPOs at higher price on the listing day at SME platform of BSE named as BSE SME as compared to SME platform on NSE called as NSE EMERGE. Company Type variable is a dummy variable deduce that secondary market investors of SME stocks give more preference SMEs stocks having services or trade types of business operations as compared to SMEs having manufacturing or production types of business on the day of listing of SME stocks. Issue Size (Value) confers positively in determining the listing day closing prices of SMEs IPOs manifests that more the value of the total issue size, listing day closing price would be valued higher. Net Issue of Shares contributes positively in the determination of listing day price of SME IPOs reveals that if the total number of shares available for investors other than market makers is high then listing day closing price would be valued higher due to more supply of shares for secondary investors of SMEs stocks. The variable Shares Allotted to Retail Investors Allocation contributes inversely in determining listing day closing price of SME IPOs means that more allocation to retail investors brings the listing day closing price of SME IPOs on down side. Market Makers %age Allocation positively influences the listing day closing price of SME IPOs states that more would be reserve of shares for market makers high would be the listing day closing price because market makers have to provide liquidity for that particular stock in the secondary so more allotment to market makers more liquidity for the stock in the secondary market and secondary investors may easily exit and enter. The variable Offer Price contributes directly in determining listing day closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the listing day closing price of SME IPOs on higher side. IB Success Rate is the percentage of IPOs which are underpriced or provided positive returns from the total number of IPOs handled by investment banker during the time period prior to SME IPOs and this IB Success Rate positively links with listing day closing price of SME IPOs indicates that capability of investment banker to bring positive listing of SME IPOs influences the listing day closing price of IPOs directly.

From the discussion of above points related to the valuations of SME IPOs listing day price derives that key-financials and non-financial disclosures may be used to assess the value of listing day opening and closing prices of SMEs public offerings significantly up to great and significant extent for upcoming SME IPOs. The variables Overall Subscription, Company Type, Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Offer Price and IB

Success Rate belong to non-financial disclosures and the no variable belong to key-financials would be mainly used to do the valuations of SMEs IPOs listing day prices which would be helpful in better decision making and valuations for SMEs stock investors in the secondary market.

CHAPTER 7

EFFECT OF KEY FINANCIALS AND NON-FINANCIAL DISCLOSURES ON POST LISTING PERFORMANCE OF SME PUBLIC OFFERINGS

This chapter tried to explore the relationship and effect of key financials and non-financial information on post listing performance of small medium enterprises (SMEs) public offerings. There are investors who are not able to get the securities which are offered publically during the initial allotment period so those investors try to buy those from the stock exchanges on the listing day as well as after listing and those investors who have already been allotted securities try to sell after listing of securities on stock exchanges to book their expected profit so post listing prices of securities may have variation from the issue price. Firms formally disclose their key financial and non-financial information to the public through prospectus document before the opening of public offerings subscription. This chapter studied in detail the contribution of different types of key financials and non-financial disclosures in determining post listing performance of SMEs public offerings. The below given fourth objective of this research study was studied by testing statistically the below mentioned null hypothesis.

Objective 4: To examine the relationship of key financials and non-financial disclosures in post listing performance of SME public offerings.

Null Hypothesis H_{04}: *Key financials and non-financial disclosures have no relationship with post listing performance of SME public offerings.*

This chapter was divided into seven sections to explain the progress of achievement of the objective under the research study for this chapter. Section 7.1 discussed about the research methodology to explore the relationship between types of dependent variables related to the post listing prices of SMEs IPOs on the stock exchanges and independent variables related to the key financials and non-financial disclosures. Section 7.2 presented the effect of key financials and non-financial disclosures on SMEs IPOs prices after one month from the listing day. Section 7.3 exhibited the effect of factors related to key financials and non-financial disclosures on SMEs IPOs prices after three months from the listing day. Section 7.4 elucidated the findings of key financials and non-financial factors determining the SMEs IPOs prices after six months from the listing day. Section 7.5 elaborated the relationship between SMEs IPOs prices after nine months from the listing day and different types of key financials and non-financial information disclosed

to the investors. Section 7.6 investigated the contribution different types of key financials and non-financial information disclosed to the investors in determining SMEs IPOs prices after one year from the listing day. 7.7 described the overall conclusion and summary related to analysis of objective of the research study under this chapter.

7.1 Methodology

In this research 352 SME IPOs offering common equity securities from time period June 2012 to March 2021 were taken as sample. Secondary data related to closing price of SME IPOs after one month from the listing, closing price of SME IPOs after three months from the listing, closing price of SME IPOs after six months from the listing, closing price of SME IPOs after nine months from the listing and closing price of SME IPOs after one year from the listing, were collected from two SME stock exchanges of India which are BSE SME and NSE EMERGE. These all types of post listing prices of SME IPOs were taken as dependent variables to test the hypothesis of objective 4 of the research thesis under this chapter by using multivariate regression. Data related to key financials and non-financial variables were collected from the prospectus documents of these 352 SME IPOs, financial statements, Capitaline data base and other useful and reliable sources. There were total 50 variables related to key financials and non-financial disclosures taken as independent variables out of which 36 variables were related to non-financial disclosures construct and 14 variables were made the key financials construct for the study of respective objective under this chapter. These all 50 variables consisting of key financials and non-financial disclosure constructs were taken as the independent variables to statistically test the null hypothesis related to respective objective under this chapter by using multivariate regression technique. List of all Key-Financials and Non-Financial disclosures which were used for the studying of respective objective under this chapter can be obtained from tables 3.1 and 3.2 respectively.

Multivariate backward stepwise regression was used to study the effect of independent variables (Key-Financials and Non-Financial Disclosures) on the dependent variables (Post listing SME IPOs prices) by taking care the basic conditions of multivariate regression that are given as:

- Dependent variables must be continuous in nature.

- No autocorrelation should exist among the residuals which can be checked through the Durbin Watson test.
- Linear relationship must be there between dependent and independent variables.
- Variance among the residuals must be homogeneous which can be tested through Breush Pagan test.
- No Multicollinearity should be there between the independent variables and this can be analyzed through tolerance limits and variance inflation factor (VIF) value.
- There should be normality in the residual values which can be tested through Kolmogorov-Smirnov and Shapiro-Wilk test.

To test statistically the main null hypothesis related to respective research objective under this chapter had further been divided into set of five null hypotheses according to five dependent variables due to five types of SME IPOs post listing prices which were closing price of SME IPOs after one month from the listing, closing price of SME IPOs after three months from the listing, closing price of SME IPOs after six months from the listing, closing price of SME IPOs after nine months from the listing and closing price of SME IPOs after one year from the listing. These all null hypotheses are given below as:

Main

- H_{04}: *Key financials and non-financial disclosures have no relationship with post listing performance of SME public offerings.*

Set of Five null hypotheses

- $H_{04(a)}$: *There is no effect of key financials and non-financial disclosures on One month price of SME IPOs.*
- $H_{04(b)}$: *There is no effect of key financials and non-financial disclosures on Three months price of SME IPOs.*
- $H_{04(c)}$: *There is no effect of key financials and non-financial disclosures on Six months price of SME IPOs.*
- $H_{04(d)}$: *There is no effect of key financials and non-financial disclosures on Nine months price of SMEs IPOs.*

- ***$H_{04(e)}$:*** *There is no effect of key financials and non-financial disclosures on One year price of SMEs IPOs.*

All the set of five null hypotheses mentioned above were statistically analyzed and interpreted in the subsequent subsections of this section.

7.2 Effect of key financials and non-financial disclosures on One month price of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{04(a)}$: *There is no effect of key financials and non-financial disclosures on One month price of SME IPOs.*

The output of the regression analysis is given in table 7.1

Table 7.1: Output of regression between One month price of SME IPOs and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
1M IPO Price	0.93	232.47	0.000	(Constant)	(Constant)	-	15.204		1.665	0.097
				Retail Subscription	Subs_R	Non Financial	0.107	0.029	1.955	0.051
				Stock Exchange	ST_EX	Non Financial	-3.593	-0.024	-1.634	0.103
				Issue Type	Iss_TY	Non Financial	-6.939	-0.03	-1.941	0.053
				Shares Allotted to Non Retail	Allot_NR	Non Financial	-0.000002618	-0.037	-1.732	0.084
				Non Retail Investors %age	NR_%Allot	Non Financial	0.188	0.061	2.807	0.005
				Listing Day Closing Price	Lis_Clsg	Non Financial	0.98	0.94	58.011	0
				Type of Affiliation	Private	Non Financial	-20.361	-0.128	-3.041	0.003
					Standalone	Non Financial	-2.14E+01	-0.131	-3.05	0.002
				No of Group entites	No_Grp	Non Financial	2.39E-01	0.015	0.92	0.358
				Prior Market Returns	Pr_Mkt_Rtrn	Non Financial	-2.63E-01	-0.031	-1.936	0.054
				Prior Initial Returns	Pr_Ini_Rtrn	Non Financial	0.126	0.014	0.899	0.369
				IB Total Listings	IB_Tot	Non Financial	0.047	0.015	0.914	0.361
				IB Success Rate	IB_Rate	Non Financial	0.073	0.021	1.344	0.18
				Listing Delay	Lis_Dly	Non Financial	-0.057	-0.034	-2.323	0.021
				Firm Age	Age	Non Financial	0.207	0.024	1.656	0.099
				Debt-Equity Ratio	D/E	Key Financial	-0.48	-0.019	-1.081	0.28
				Fixed Assets Turnover	FA_Turn	Key Financial	0.003	0.028	1.907	0.057
				Debtors Turnover	Deb_Turn	Key Financial	-0.02	-0.036	-2.446	0.015
				Interest Cover Ratio	Int_Cov	Key Financial	0.042	0.017	1.158	0.248
				Return on Net Worth	RONW	Key Financial	0.041	0.023	1.26	0.209

7.2.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.884 which was lying in the range from 1.5 to 2.5 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.000 which is less than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be accepted hence the residuals have not constant variance.
- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

7.2.2 Analysis of multivariate regression model between One month price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (SME IPOs price after one month from listing) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining price after one month from listing of SMEs public offerings.

$H_{04(a)}$: *There is no effect of key financials and non-financial disclosures on One month price of SME IPOs*

According to multiple regression output table 7.1, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 232.47 and 0.000 respectively at 5% significance level so the above given null hypothesis was not accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on SME IPOs price after one month from listing day.

As per table 7.1, the value of adjusted R square was calculated as 0.93 inferred that the model could determine the after one month listing price of SMEs public offerings up to 93% accuracy which was very high and significant at 5% significance level and acceptable so the suggested model to determine after one month listing price of SMEs public offerings through the key financials and non-financial disclosures is given as:

One Month SME IPO Price = 15.204 + 0.107*(Subs_R) - 3.593*(ST_EX) - 6.939*(Iss_TY) – $2.618*10^{-6}$*(Allot_NR) + 0.188*(NR_%Allot) + 0.977*(Lis_Clsg) - 20.361*(Private) - 21.413*(Standalone) + 0.239*(No_Grp) - 0.263*(Pr_Mkt_Rtrn) + 0.126*(Pr_Ini_Rtrn) + 0.047*(IB_Tot) + 0.073*(IB_Rate) - 0.057*(Lis_Dly) + 0.207*(Age) - 0.48*(D/E) + 0.003*(FA_Turn) - 0.02*(Deb_Turn) + 0.042*(Int_Cov) + 0.041*(RONW) … (7.1)

Where

Subs_R = Retail Subscription; Non-Financial

ST_EX = Stock Exchange; Non-Financial

Iss_TY = Issue Type; Non-Financial

Allot_NR = Shares Allotted to Non Retail Investors; Non-Financial

NR_%Allot = Non Retail Investors %age Allocation; Non-Financial

Lis_Clsg = Listing Day Closing Price; Non-Financial

Private = Type of Affiliation; Non-Financial

Standalone = Standalone; Non-Financial

No_Grp = No of Group entites; Non-Financial

Pr_Mkt_Rtrn = Prior Market Returns; Non-Financial

Pr_Ini_Rtrn = Prior Initial Returns; Non-Financial

IB_Tot = IB Total Listings; Non-Financial

IB_Rate = IB Success Rate; Non-Financial

Lis_Dly = Listing Delay; Non-Financial

Age = Firm Age; Non-Financial

D/E = Debt-Equity Ratio; Key-Financial

FA_Turn = Fixed Assets Turnover; Key-Financial

Deb_Turn = Debtors Turnover; Key-Financial

Int_Cov = Interest Cover Ratio; Key-Financial

RONW = Return on Net Worth; Key-Financial

From the above model equation (7.1) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the after one month listing price of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the after one month listing price of SMEs IPOs according to model equation (7.1) was discussed in section 7.7.

7.3 Effect of key financials and non-financial disclosures on Three months price of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{04(b)}$: *There is no effect of key financials and non-financial disclosures on Three months price of SME IPOs.*

The output of the regression analysis is given in table 7.2

Table 7.2: Output of regression between Three months price of SME IPOs and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
3M IPO Price	0.82	114.872	0.000	(Constant)	(Constant)	-	44.464		3.176	0.002
				Overall Subscription	Subs_O	Non Financial	-0.146	-0.044	-1.85	0.065
				Stock Exchange	ST_EX	Non Financial	-6.568	-0.035	-1.51	0.133
				Offer Price	OP	Non Financial	-1.166	-0.886	-4.72	0
				Listing Day Closing Price	Lis_Clsg	Non Financial	2.144	1.657	8.831	0
				Type of Affiliation	Private	Non Financial	-59.859	-0.303	-4.51	0
					Standalone	Non Financial	-67.965	-0.335	-4.98	0
				IB Total Listings	IB_Tot	Non Financial	0.166	0.043	1.867	0.063
				Listing Delay	Lis_Dly	Non Financial	-1.00E-01	-0.048	-2.04	0.042
				Firm Age	Age	Non Financial	6.06E-01	0.058	2.47	0.014
				Debt-Equity Ratio	D/E	Key Financial	1.17E+00	0.038	0.83	0.407
				Long Term Debt-Equity Ratio	L_D/E	Key Financial	-2.926	-0.052	-1.16	0.248
				Fixed Assets Turnover	FA_Turn	Key Financial	0.043	0.298	12.96	0
				Debtors Turnover	Deb_Turn	Key Financial	-0.02	-0.028	-1.24	0.217
				Return on Capital Employed	ROCE	Key Financial	0.522	0.136	5.401	0

7.3.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 1.659 which was lying in the range from 1.5 to 2.5 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.000 which is less than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be accepted hence the residuals have not constant variance.
- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.

- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

7.3.2 Analysis of multivariate regression model between Three months price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (SME IPOs price after Three months from listing) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining price after Three months from listing of SMEs public offerings.

$H_{04(b)}$: *There is no effect of key financials and non-financial disclosures on Three months price of SME IPOs.*

According to multiple regression output table 7.2, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 114.872 and 0.000 respectively at 5% significance level so the above given null hypothesis could not be accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on Three months SME IPOs price.

As per table 7.2, the value of adjusted R square was calculated as 0.82 inferred that the model could determine the price after Three months from listing of SMEs public offerings up to 82% accuracy which was high as well as significant at 5% significance level and acceptable so the suggested model to determine price after Three months from listing of SMEs public offerings through the key financials and non-financial disclosures is given as:

Three Months SME IPO Price = 44.64 - 0.146*(Subs_O) - 6.568*(ST_EX) - 1.166*(OP) + 2.144*(Lis_Clsg) - 59.859*(Private) - 67.965*(Standalone) + 0.166*(IB_Tot) - 0.1*(Lis_Dly)

+ 0.606*(Age) + 1.167*(D/E) - 2.926*(L_D/E) + 0.043*(FA_Turn) - 0.02*(Deb_Turn) + 0.522*(ROCE) … (7.2)

Where

Subs_O = Overall Subscription; Non-Financial

ST_EX = Stock Exchange; Non-Financial

OP = Offer Price; Non-Financial

Lis_Clsg = Listing Day Closing Price; Non-Financial

Private = Type of Affiliation; Non-Financial

Standalone = Standalone; Non-Financial

IB_Tot = IB Total Listings; Non-Financial

Lis_Dly = Listing Delay; Non-Financial

Age = Firm Age; Non-Financial

D/E = Debt-Equity Ratio; Key-Financial

L_D/E = Long Term Debt-Equity Ratio; Key-Financial

FA_Turn = Fixed Assets Turnover; Key-Financial

Deb_Turn = Debtors Turnover; Key-Financial

ROCE = Return on Capital Employed; Key-Financial

From the above model equation (7.2) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the price after Three months from listing of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the Three months price of SMEs IPOs according to model equation (7.2) was discussed in section 7.7.

7.4 Effect of key financials and non-financial disclosures on Six months price of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{04(c)}$: *There is no effect of key financials and non-financial disclosures on Six months price of SME IPOs.*

The output of the regression analysis is given in table 7.3

Table 7.3: Output of regression between Six months price of SME IPOs and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
6M IPO Price	0.416	17.636	0.000	(Constant)	(Constant)	-	341.803		4.882	0
				Overall Subscription	Subs_O	Non Financial	-0.478	-0.068	-1.589	0.113
				Stock Exchange	ST_EX	Non Financial	-30.323	-0.077	-1.814	0.071
				Issue Type	Iss_TY	Non Financial	-57.027	-0.095	-2.097	0.037
				Shares Allotted to Non Retail Investors	Allot_NR	Non Financial	-1.53E-05	-0.083	-1.349	0.178
				Non Retail Investors %age Allocation	NR_%Allot	Non Financial	0.581	0.072	1.176	0.24
				Offer Price	OP	Non Financial	-5.231	-1.879	-5.482	0
				Listing Day Closing Price	Lis_Clsg	Non Financial	6.042	2.206	6.412	0
				Type of Affiliation	Private	Non Financial	-313.256	-0.749	-6.191	0
					Standalone	Non Financial	-338.584	-0.789	-6.467	0
				Prior Market Volatility	Pr_Mkt_Vlty	Non Financial	22.298	0.044	1.045	0.297
				IB Total Listings	IB_Tot	Non Financial	0.448	0.055	1.189	0.235
				IB Success Rate	IB_Rate	Non Financial	-0.402	-0.044	-0.988	0.324
				Fixed Assets Turnover	FA_Turn	Key Financial	0.059	0.192	4.599	0
				Interest Cover Ratio	Int_Cov	Key Financial	0.503	0.079	1.848	0.065
				Return on Capital Employed	ROCE	Key Financial	1.725	0.212	4.643	0

7.4.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statisctics value was calculated as 2.008 which were nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.000 which is less than 0.05 at 95% confidence interval indicated that the null hypothesis of

homogeneity of variance among residuals could not be accepted hence the residuals have not constant variance.

- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

7.4.2 Analysis of multivariate regression model Six months price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (SME IPOs price after Six months from listing) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining price after Six months from listing of SMEs public offerings.

$H_{04(c)}$: *There is no effect of key financials and non-financial disclosures on Six months price of SME IPOs.*

According to multiple regression output table 7.3, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 17.636 and 0.000 respectively at 5% significance level so the above given null hypothesis could not be accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on three months SME IPOs price.

As per table 7.3, the value of adjusted R square was calculated as 0.416 inferred that the model could determine the price after Six months from listing of SMEs public offerings up to 41.6% accuracy which was moderate and significant at 5% significance level and acceptable so the suggested model to determine price after Six months from listing of SMEs public offerings through the key financials and non-financial disclosures is given as:

Six Months SME IPO Price = 341.803 - 0.478*(Subs_O) - 30.323*(ST_EX) - 57.027*(Iss_TY) - 0.0000153*(Allot_NR) + 0.581*(NR_%Allot) - 5.231*(OP) + 6.042*(Lis_Clsg) - 313.256*(Private) - 338.584*(Standalone) + 22.298*(Pr_Mkt_Vlty) + 0.448*(IB_Tot) - 0.402*(IB_Rate) + 0.059*(FA_Turn) + 0.503*(Int_Cov) + 1.725*(ROCE)

… (7.3)

Where

Subs_O = Overall Subscription; Non-Financial

ST_EX = Stock Exchange; Non-Financial

Iss_TY = Issue Type; Non-Financial

Allot_NR = Shares Allotted to Non Retail Investors; Non-Financial

NR_%Allot = Non Retail Investors %age Allocation; Non-Financial

OP = Offer Price; Non-Financial

Lis_Clsg = Listing Day Closing Price; Non-Financial

Private = Type of Affiliation; Non-Financial

Standalone = Standalone; Non-Financial

Pr_Mkt_Vlty = Prior Market Volatility; Non-Financial

IB_Tot = IB Total Listings; Non-Financial

IB_Rate = IB Success Rate; Non-Financial

FA_Turn = Fixed Assets Turnover; Key-Financial

Int_Cov = Interest Cover Ratio; Key-Financial

ROCE = Return on Capital Employed; Key-Financial

From the above model equation (7.3) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the price after Six months from listing of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the Six months SME IPOs price according to model equation (7.3) was discussed in section 7.7.

7.5 Effect of key financials and non-financial disclosures on Nine months price of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{04(d)}$: *There is no effect of key financials and non-financial disclosures on Nine months price of SME IPOs.*

The output of the regression analysis is given in table 7.4

Table 7.4: Output of regression between Nine months price of SME IPOs and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
9M IPO Price	0.263	11.413	0.000	(Constant)	(Constant)	-	1085.53		5.405	0
				Overall Subscription	Subs_O	Non Financial	-1.348	-0.067	-1.383	0.167
				Stock Exchange	ST_EX	Non Financial	-98.34	-0.087	-1.819	0.07
				Issue Type	Iss_TY	Non Financial	-219.416	-0.127	-2.511	0.013
				Offer Price	OP	Non Financial	-16.049	-2	-5.238	0
				Listing Day Closing Price	Lis_Clsg	Non Financial	16.553	2.097	5.489	0
				Type of Affiliation	Private	Non Financial	-1056.27	-0.876	-6.459	0
					Standalone	Non Financial	-1118.208	-0.904	-6.652	0
				Prior Market Volatility	Pr_Mkt_Vlty	Non Financial	73.376	0.05	1.071	0.285
				IB Positive Listings	IB_Pos	Non Financial	-20.878	-0.828	-2.116	0.035
				IB Total Listings	IB_Tot	Non Financial	19.877	0.85	2.195	0.029
				Interest Cover Ratio	Int_Cov	Key Financial	1.624	0.089	1.844	0.066
				Return on Capital Employed	ROCE	Key Financial	5.046	0.215	4.268	0

7.5.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 2.057 which were nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.000 which is less than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be accepted hence the residuals have not constant variance.
- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

7.5.2 Analysis of multivariate regression model Nine months price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (SME IPOs price after Nine months from listing) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining price after Nine months from listing of SMEs public offerings.

$H_{04(d)}$: *There is no effect of key financials and non-financial disclosures on Nine months price of SME IPOs.*

According to multiple regression output table 7.4, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 11.413 and 0.000 respectively at 5% significance level so the above given null hypothesis was not accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on price after Nine months from listing of SME IPOs.

As per table 7.4, the value of adjusted R square was calculated as 0.263 inferred that the model could determine the price after Nine months from listing of SMEs public offerings up to 26.3% accuracy which was quite moderate and significant at 5% significance level and acceptable so the suggested model to determine price after Nine months from listing of SMEs public offerings through the key financials and non-financial disclosures is given as:

Nine Months SME IPO Price = 1085.53 - 1.348*(Subs_O) - 98.34*(ST_EX) - 219.416*(Iss_TY) - 16.049*(OP) + 16.553*(Lis_Clsg) - 1056.27*(Private) - 1118.208*(Standalone) + 73.376*(Pr_Mkt_Vlty) - 20.878*(IB_Pos) + 19.877*(IB_Tot) + 1.624*(Int_Cov) + 5.046*(ROCE) … (7.4)

Where

Subs_O = Overall Subscription; Non-Financial

ST_EX = Stock Exchange; Non-Financial

Iss_TY = Issue Type; Non-Financial

OP = Offer Price; Non-Financial

Lis_Clsg = Listing Day Closing Price; Non-Financial

Private = Type of Affiliation; Non-Financial

Standalone = Standalone; Non-Financial

Pr_Mkt_Vlty = Prior Market Volatility; Non-Financial

IB_Pos = IB Positive Listings; Non-Financial

IB_Tot = IB Total Listings; Non-Financial

Int_Cov = Interest Cover Ratio; Key-Financial

ROCE = Return on Capital Employed; Key-Financial

From the above model equation (7.4) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the price after Nine months from listing of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the Nine months SME IPOs price according to model equation (7.4) was discussed in section 7.7.

7.6 Effect of key financials and non-financial disclosures on One year price of SMEs public offerings

In this section, the below given null hypothesis was statistically tested and analyzed through stepwise backward multivariate regression.

$H_{04(e)}$: *There is no effect of key financials and non-financial disclosures on One year price of SME IPOs.*

The output of the regression analysis is given in table 7.5

Table 7.5: Output of regression between One year price of SME IPOs and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Name of Independent Variable	Label for Independent Variable	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value
12M IPO Price	0.268	10.866	0.000	(Constant)	(Constant)	-	936.509		5.184	0
				Overall Subscription	Subs_O	Non Financial	-1.129	-0.07	-1.45	0.148
				Stock Exchange	ST_EX	Non Financial	-76.718	-0.085	-1.771	0.077
				Issue Type	Iss_TY	Non Financial	-172.122	-0.124	-2.465	0.014
				Offer Price	OP	Non Financial	-12.792	-1.989	-5.224	0
				Listing Day Closing Price	Lis_Clsg	Non Financial	13.449	2.125	5.577	0
				Independent Directors	Ind_Dir	Non Financial	-28.431	-0.046	-0.978	0.329
				Type of Affiliation	Private	Non Financial	-840.839	-0.87	-6.434	0
					Standalone	Non Financial	-885.209	-0.893	-6.591	0
				Prior Market Volatility	Pr_Mkt_Vlty	Non Financial	55.795	0.047	1.016	0.31
				IB Positive Listings	IB_Pos	Non Financial	-16.285	-0.805	-2.063	0.04
				IB Total Listings	IB_Tot	Non Financial	15.486	0.826	2.137	0.033
				Interest Cover Ratio	Int_Cov	Key Financial	1.332	0.091	1.886	0.06
				Return on Capital Employed	ROCE	Key Financial	3.845	0.205	4.064	0

7.6.1 Analysis of multivariate regression conditions

Basic conditions of multivariate regression were statistically checked and below given observations were made.

- Durbin Watson test statistics value was calculated as 2.046 which were nearly 2 indicated that there was no autocorrelation among the residuals.
- P value of Breusch Pagan test of homoscedasticity of residuals was observed as 0.000 which is less than 0.05 at 95% confidence interval indicated that the null hypothesis of homogeneity of variance among residuals could not be accepted hence the residuals have not constant variance.
- P value of Kolmogorov-Smirnov and Shapiro-Wilk test of normality of residuals was observed as 0.000 which was less than 0.05 at 95% confidence interval indicated that the null hypothesis of normality in the residuals could not be accepted and hence residual values were not normally distributed and now this was assumed that residuals were normal because the residuals data was continuous and sample size was quite large to validate this assumption.
- Tolerance and variance inflation factor (VIF) values for independent variables were observed more than 0.10 and less than 10 respectively indicated that either there was no Multicollinearity or low level of Multicollinearity among the independent variables which can be accepted.
- There is no statistical test to check the linear relationship among the dependent and independent variables so it is assumed that there was linear relationship and multivariate regression had been applied. The significance of linearity would be justified by ANOVA F and P values of linear model along with coefficients of determination that is adjusted R square.

7.6.2 Analysis of multivariate regression model One year price of SMEs public offerings and key financials and non-financial disclosures

Multivariate regression technique was applied between dependent variable (SME IPOs price after One year from listing) and independent variables (Key financials and non-financial disclosures) to statistically test the below given hypothesis and suggest the model of determining price after One year from listing of SMEs public offerings.

$H_{04(e)}$: *There is no effect of key financials and non-financial disclosures on One year price of SME IPOs.*

According to multiple regression output table 7.5, this was observed that the model was significant as the ANOVA F statistics and P values were calculated as 10.866 and 0.000 respectively at 5% significance level so the above given null hypothesis was not accepted and this was extracted that there was significant effect of key financials and non-financial disclosures on price after One year from listing of SME IPOs.

As per table 7.5, the value of adjusted R square was calculated as 0.268 inferred that the model could determine the price after One year from listing of SMEs public offerings up to 26.8% accuracy which was not high but significant at 5% significance level and acceptable so the suggested model to determine price after One year from listing of SMEs public offerings through the key financials and non-financial disclosures is given as:

One year SME IPO Price = 936.509 - 1.129*(Subs_O) - 76.718*(ST_EX) - 172.122*(Iss_TY) - 12.792*(OP) + 13.449*(Lis_Clsg) - 28.431*(Ind_Dir) - 840.839*(Private) - 885.209*(Standalone) + 55.795*(Pr_Mkt_Vlty) - 16.285*(IB_Pos) + 15.486*(IB_Tot) + 1.332*(Int_Cov) + 3.845*(ROCE) … (7.5)

Where

Subs_O = Overall Subscription; Non-Financial

ST_EX = Stock Exchange; Non-Financial

Iss_TY = Issue Type; Non-Financial

OP = Offer Price; Non-Financial

Lis_Clsg = Listing Day Closing Price; Non-Financial

Ind_Dir = Independent Directors; Non-Financial

Private = Type of Affiliation; Non-Financial

Standalone = Standalone; Non-Financial

Pr_Mkt_Vlty = Prior Market Volatility; Non-Financial

IB_Pos = IB Positive Listings; Non-Financial

IB_Tot = IB Total Listings; Non-Financial

Int_Cov = Interest Cover Ratio; Key-Financial

ROCE = Return on Capital Employed; Key-Financial

From the above model equation (7.5) this was summarized that different key financials and non-financial disclosures could be significantly used to determine the price after one year from listing of SMEs public offerings. The detailed interpretation and contribution of each and every key financial and non-financial disclosure which can determine the One year SME IPOs price according to model equation (7.5) was discussed in section 7.7.

7.7 Conclusion and summary

This section describes the output of backward step wise multiple regression models applied to study the effect of key-financials and non-financial disclosures on post listing price performances of SMEs IPOs which are given as:

- Table 7.1 shows the output of regression between One month price of SME IPOs and key financials as well as non-financial disclosures.
- Table 7.2 shows the output of regression between Three months price of SME IPOs and key financials as well as non-financial disclosures.
- Table 7.3 shows the output of regression between Six months price of SME IPOs and key financials as well as non-financial disclosures.
- Table 7.4 shows the output of regression between Nine months price of SME IPOs and key financials as well as non-financial disclosures.
- Table 7.5 shows the output of regression between One year price of SME IPOs and key financials as well as non-financial disclosures.

Every table output as mentioned above has been interpreted and summarized separately according to the different types of post listing prices of SMEs IPOs which are given here below.

One month price of SMEs public offerings: From the table 7.1, this has been observed that the variables Retail Subscription, Issue Type, Non Retail Investors %age Allocation, Listing Day Closing Price, Private, Standalone, Prior Market Returns, Listing Delay, Firm Age, Fixed Assets

Turnover and Debtors Turnover significantly affect the One month price of SMEs IPOs at maximum of 10% significance level. The variables Retail Subscription, Issue Type, Non Retail Investors %age Allocation, Listing Day Closing Price, Type of Affiliation, Standalone, Prior Market Returns, Listing Delay and Firm Age belong to non-financial disclosures on the other side the variables Fixed Assets Turnover and Debtors Turnover belong to key-financials. The Retail Subscription of SMEs IPOs determines the value of one month closing price of SME IPOs directly which means that the higher IPOs retail subscription leads to higher one month closing price of SMEs stocks from the listing day. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues even after one month from the day of listing of SMEs IPOs. The variable Non-Retail Investors %age Allocation contributes directly in determining one month closing price of SME IPOs means that more percentage allocation to non-retail investors brings the one month closing price of SME IPOs on higher side because the buying capacity of non-retail investors is comparatively higher than retail investors as it includes high net worth individuals and institutional investors who can buy in bulk and create more positive sentiment for the SMEs IPOs. The variable Listing Day Closing Price contributes directly in determining one moth closing price of SME IPOs means that SME IPO closed with more price on the listing day from the issue price brings the one month closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after one month from the day of listing. The variable Prior Market Returns inversely affects the one month closing price of SME IPOs and also indicates that the one month closing price would be high if the SME stock market short term returns would be on downside at the time of three months before opening of SME IPOs issue. This may be due to the secondary market investor perception of expecting high price of SME IPOs after one month from listing day as a compensation of down market at the time SME IPOs issue opening. The variable Listing Delay which is number of days between listing date and SME IPO issue closing date, this listing delay influences oppositely to determine the one month SMEs IPOs price indicates that the IPOs should avoid listing delay else it may negatively impact for short run the valuation of stocks in the secondary market. The variable Firm Age also contributes positively in the one month price

of SMEs IPOs indicates that older the SME firms stocks would be values high even after one month from the listing. The key-financial Fixed Assets Turnover has positive coefficient in determining one month closing price of SMEs IPOs ascertains that the SMEs those having high capacity to utilize its fixed asset to generate revenues can expect more valuation in the price of the securities listed on the SME stock market. The variable Debtors Turnover determine inversely the one month closing price of SMEs IPOs which mean that the SMEs those having high debtor turnover their stocks would be valued on low side in the secondary market for short run.

Three months price of SMEs public offerings: From the table 7.2, this has been observed that the variables Overall Subscription, Offer Price, Listing Day Closing Price, Private, Standalone, IB Total Listings, Listing Delay, Firm Age, Fixed Assets Turnover and Return on Capital Employed significantly affect the Three months price of SMEs IPOs at maximum of 10% significance level. The variables Overall Subscription, Offer Price, Listing Day Closing Price, Private, Standalone, IB Total Listings, Listing Delay and Firm Age belong to non-financial disclosures on the other side the variables Fixed Assets Turnover and Return on Capital Employed belong to key-financials. The Overall Subscription of SMEs IPOs determines the value of three months closing price of SME IPOs negatively which means that the higher IPOs overall subscription leads to lower three months closing price of SMEs stocks from the listing day. The variable Offer Price contributes oppositely in determining three months closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the valuation of three months closing price of SME IPOs on the lower side. The variable Listing Day Closing Price contributes directly in determining three months closing price of SME IPOs means that SME IPO closed with high price on the listing day from the issue price brings the three months closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after three months from the day of listing. The variable IB Total Listings reveals the role of investment banker in three months closing price of SMEs IPOs which indicates that number of number of IPOs handled by investment banker during the time period prior to the SME IPO affects positively three months closing price of SMEs IPOs so the more the number of IPOs handled by investment banker, three

months closing price of SMEs IPOs may be high because investors may think that investment banker might get better experience in making the IPOs successful. The variable Listing Delay which is number of days between listing date and SME IPO issue closing date, this listing delay influences oppositely to determine the three months closing price of SMEs IPOs indicates that the IPOs should avoid listing delay else it may negatively impact for short run the valuation of stocks in the secondary market. The variable Firm Age also contributes positively in the three months closing price of SMEs IPOs indicates that older the SME firms stocks would be values high even after three months from the listing. The key-financial Fixed Assets Turnover has positive coefficient in determining three months closing price of SMEs IPOs ascertains that the SMEs those having high capacity to utilize its fixed asset to generate revenues can expect more valuation in the price of the securities listed on the SME stock market. The variable Return on Capital Employed which is related to key-financials also influences the three months closing price of SMEs IPOs directly states that the investors would do valuation on higher side of those SMEs stocks having higher SME firm's returns on invested capital.

Six months price of SMEs public offerings: From the table 7.3, this has been observed that the variables Stock Exchange, Issue Type, Offer Price, Listing Day Closing Price, Private, Standalone, Fixed Assets Turnover, Interest Cover Ratio and Return on Capital Employed significantly affect the Six months price of SMEs IPOs at maximum of 10% significance level. The variables Stock Exchange, Issue Type, Offer Price, Listing Day Closing Price, Private and Standalone belong to non-financial disclosures on the other side the variables Fixed Assets Turnover, Interest Cover Ratio and Return on Capital Employed belong to key-financials. Stock exchange variable is a dummy variable that indicates that the secondary market investors of SMEs stocks prefer to trade SMEs IPOs at higher price even after six months from the listing day at SME platform of BSE named as BSE SME as compared to SME platform on NSE called as NSE EMERGE. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues even after six months from the day of listing of SMEs IPOs. The variable Offer Price contributes oppositely in determining six months closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the valuation of six months closing price of SME IPOs on the lower side. The variable Listing Day Closing Price contributes directly in determining six months closing price of SME IPOs means that SME

IPO closed with high price on the listing day from the issue price brings the six months closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after six months from the day of listing. The key-financial Fixed Assets Turnover has positive coefficient in determining six months closing price of SMEs IPOs ascertains that the SMEs those having high capacity to utilize its fixed asset to generate revenues can expect more valuation in the price of the securities listed on the SME stock market. The key-financial Interest Cover Ratio has positive coefficient in determining six months closing price of SMEs IPOs ascertains that the SMEs those having high capacity to fulfill its long term debt obligation can expect better valuation for the equity securities listed on SMEs stocks exchanges. The variable Return on Capital Employed which is related to key-financials also influences the six months closing price of SMEs IPOs directly states that the investors would do valuation on higher side of those SMEs stocks having higher SME firm's returns on invested capital.

Nine months price of SMEs public offerings: From the table 7.4, this has been observed that the variables Stock Exchange, Issue Type, Offer Price, Listing Day Closing Price, Private, Standalone, IB Positive Listings, IB Total Listings, Interest Cover Ratio and Return on Capital Employed significantly affect the nine months price of SMEs IPOs at maximum of 10% significance level. The variables Stock Exchange, Issue Type, Offer Price, Listing Day Closing Price, Private, Standalone, IB Positive Listings and IB Total Listings belong to non-financial disclosures on the other side the variables Interest Cover Ratio and Return on Capital Employed belong to key-financials. Stock exchange variable is a dummy variable that indicates that the secondary market investors of SMEs stocks prefer to trade SMEs IPOs at higher price even after nine months from the listing day at SME platform of BSE named as BSE SME as compared to SME platform on NSE called as NSE EMERGE. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues even after nine months from the day of listing of SMEs IPOs. The variable Offer Price contributes oppositely in

determining nine months closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the valuation of nine months closing price of SME IPOs on the lower side. The variable Listing Day Closing Price contributes directly in determining nine months closing price of SME IPOs means that SME IPO closed with high price on the listing day from the issue price brings the nine months closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after nine months from the day of listing. The variable IB Total Listings reveals the role of investment banker in nine months closing price of SMEs IPOs which indicates that number of number of IPOs handled by investment banker during the time period prior to the SME IPO affects positively nine months closing price of SME IPOs on the SME stock exchange so the more the number of IPOs handled by investment banker, the investors may be bullish for SME stock. The variable IB Positive Listings disseminate the role of investment banker in price valuation of SMEs IPOs after nine months from the listing signify that number of IPOs handled by investment banker in which IPO is underpriced or provided positive return to the investor during the time period prior to the SME IPO affects inversely the price valuation of SME IPOs so the more the number of IPOs provided positive returns handled by investment banker lower would be the price of IPOs on stock exchange. The key-financial Interest Cover Ratio has positive coefficient in determining nine months closing price of SMEs IPOs ascertains that the SMEs those having high capacity to fulfill its long term debt obligation can expect better valuation for the equity securities listed on SMEs stocks exchanges. The variable Return on Capital Employed which is related to key-financials also influences the nine months closing price of SMEs IPOs directly states that the investors would do valuation on higher side of those SMEs stocks having higher SME firm's returns on invested capital.

One year price of SMEs public offerings: From the table 7.5, this has been observed that the variables Stock Exchange, Issue Type, Offer Price, Listing Day Closing Price, Private, Standalone, IB Positive Listings, IB Total Listings, Interest Cover Ratio and Return on Capital Employed significantly affect the one year price of SMEs IPOs at maximum of 10% significance level. The variables Stock Exchange, Issue Type, Offer Price, Listing Day Closing Price, Private, Standalone, IB Positive Listings and IB Total Listings belong to non-financial disclosures on the

other side the variables Interest Cover Ratio and Return on Capital Employed belong to key-financials. Stock exchange variable is a dummy variable that indicates that the secondary market investors of SMEs stocks prefer to trade SMEs IPOs at higher price even after one year from the listing day at SME platform of BSE named as BSE SME as compared to SME platform on NSE called as NSE EMERGE. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues even after one year from the day of listing of SMEs IPOs. The variable Offer Price contributes oppositely in determining one year closing price of SME IPOs that means SMEs IPOs issued with more premium price from the face value brings the valuation of one year closing price of SME IPOs on the lower side. The variable Listing Day Closing Price contributes directly in determining one year closing price of SME IPOs means that SME IPO closed with high price on the listing day from the issue price brings the one year closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after one year from the day of listing. The variable IB Total Listings reveals the role of investment banker in one year closing price of SMEs IPOs which indicates that number of number of IPOs handled by investment banker during the time period prior to the SME IPO affects positively one year closing price of SME IPOs on the SME stock exchange so the more the number of IPOs handled by investment banker, the investors may be bullish for SME stock. The variable IB Positive Listings disseminate the role of investment banker in price valuation of SMEs IPOs after one year from the listing signify that number of IPOs handled by investment banker in which IPO is underpriced or provided positive return to the investor during the time period prior to the SME IPO affects inversely the price valuation of SME IPOs so the more the number of IPOs provided positive returns handled by investment banker lower would be the price of IPOs on stock exchange. The key-financial Interest Cover Ratio has positive coefficient in determining one year closing price of SMEs IPOs ascertains that the SMEs those having high capacity to fulfill its long term debt obligation can expect better valuation for the equity securities listed on SMEs stocks exchanges. The variable Return on Capital Employed which is related to key-financials also influences the one year closing price of

SMEs IPOs directly states that the investors would do valuation on higher side of those SMEs stocks having higher SME firm's returns on invested capital.

From the discussion of above points related to the valuations of SME IPOs post listing price derives that key-financials and non-financial disclosures may be used to assess the value of post listing closing prices of SMEs public offerings up to great and significant extent for upcoming SME IPOs. These non-financial disclosures and key-financials would be mainly used to do the valuations of SMEs IPOs post listing prices after one month, three months, six months, nine months and one year which would be helpful in better decision making and valuations for SMEs stock investors in the secondary market. As the time gap from the listing day increase the determination capacity of valuation models for post listing prices come down this concludes that in the long run updated key-financials and non-financial disclosures information might be useful for better determination of post listing share prices for SMEs stock which have already listed for more than nine months on SME stock exchanges.

CHAPTER 8

COMPARISON AND RELATIONSHIP OF SMES PUBLIC OFFERINGS PERFORMANCE WITH MARKET PERFORMANCE

This chapter investigated the comparison and relationship of short run and long run SMEs public offerings performance with the market performance. Short run SMEs public offerings performance was measured by considering listing day returns of SMEs IPOs, SMEs IPOs returns one month after from the listing, SMEs IPOs returns Three months after from the listing, SMEs IPOs returns Six months after from the listing and SMEs IPOs returns Nine months after from the listing. On the same lines long run performance of SMEs public offerings was considered by calculating SMEs IPOs returns after one year from the listing, SMEs IPOs returns after two years from the listing and SMEs IPOs returns after three years from the listing. Short run performance of the market was recorded through the market returns from the SMEs IPOs issue closing till listing of SMEs IPOs, market returns from the SMEs IPOs issue closing till one month after listing of SMEs IPOs, market returns from the SMEs IPOs issue closing till three months after listing of SMEs IPOs, market returns from the SMEs IPOs issue closing till six months after listing of SMEs IPOs and market returns from the SMEs IPOs issue closing till nine months after listing of SMEs IPOs. On the same lines long run market performance was measured through the market returns from the SMEs IPOs issue closing till twelve months after listing of SMEs IPOs, market returns from the SMEs IPOs issue closing till 24 months after listing of SMEs IPOs and market returns from the SMEs IPOs issue closing till 36 months after listing of SMEs IPOs.

The below mentioned objective of this research study has been investigated by testing statistically the two null hypotheses which have also been mentioned here.

Objective 5: To compare the short run and long run performance of SME public offerings with market performance.

Null hypothesis

$H_{05(a)}$: There is no difference between short run performance of SMEs public offerings and market.

$H_{05(b)}$: There is no difference between long run performance of SMEs public offerings and market.

To do the analysis of above mentioned research objective, this chapter has been divided into two sections. Section 8.1 elaborated about the research methodology along with tools and techniques used to compare the short run and long run performance of SMEs public offerings with the short run and long run performance of market. Section 8.2 demonstrated the comparison and relationship of SMEs IPOs returns with market returns which further comprised of trends in Indian SME stock exchanges, comparison of listing day SMEs IPOs returns with Indian SME stock exchanges and comparison and relationship of SMEs IPOs raw returns and MAER with market returns on various time durations started from listing day to three years.

8.1 Research Methodology

In this research 352 SMEs IPOs offering common equity securities from the time period June 2012 to March 2021 were taken as sample. Out of these 352 SMEs IPOs 206 were initially listed on SME platform of BSE named as BSE SME and 146 SMEs IPOs were initially listed on SME platform of NSE called as NSE EMERGE. Secondary data related to SME IPOs issue price, listing day opening price, listing day closing price, closing price of SME IPOs after one month from the listing, closing price of SME IPOs after three months from the listing, closing price of SME IPOs after six months from the listing, closing price of SME IPOs after nine months from the listing, closing price of SME IPOs after twelve months from the listing, closing price of SME IPOs after twenty four months from the listing, closing price of SME IPOs after Thirty Six months from the listing were collected from SME stock exchange on which respective SMEs were listed. Similarly secondary data related to closing market indices values on SMEs IPOs issue closing date, closing market indices values on SMEs IPOs listing date, closing market indices values after one month of SMEs IPOs listing day, closing market indices values after three months of SMEs IPOs listing day, closing market indices values after six months of SMEs IPOs listing day, closing market indices values after nine months of SMEs IPOs listing day, closing market indices values after twelve months of SMEs IPOs listing day, closing market indices values after twenty four months of SMEs IPOs listing day and closing market indices values after thirty six months of SMEs IPOs listing day were collected from the SME stock exchange on which SMEs IPOs were listed. These all types of SMEs IPOs prices and market indices values were used to measure the short run and long run performance of the SME IPOs

and market on which these SME IPOs were listed to study the research objective of this research thesis.

Financial tools and statistical techniques were used to analyze the research objective belongs to this as mentioned above. The details of all tools and techniques which were used to study the required objective are given as:

Financial Tools

- **Raw returns / Simple returns:** Raw returns of SME IPOs and market were calculated for listing day, one month after listing, three months after listing, six months after listing, nine months after listing, twelve months after listing, twenty four months after listing and thirty six months after listing by using the formulas given as:

$$R_{it} = [\{P_{it}/P_{io}\} - 1] \quad .....(8.1)$$

$$R_{mt} = [\{M_t/M_o\} - 1] \quad .....(8.2)$$

Where

R_{it} = Raw return of SME firm i at time t

R_{mt} = Return on SME stock market index during period t

P_{it} = Closing price of the SME share of firm i at time t

P_{io} = Issue price / Offer price of SME share of the i^{th} firm

M_t = SME stock market closing index value at time t

M_o = SME stock market closing index value on the SME IPO issue closing day

t (Time)	Type of Returns to be Calculated
Listing day	Listing day returns
One month after listing	One month returns
3 months after listing	Three months returns
6 months after listing	Six months returns
9 months after listing	Nine months returns
12 months after listing	One year returns
24 months after listing	Two years returns
36 months after listing	Three years returns

- **Market adjusted excess returns (MAERs):** It is excess return generated by SME IPOs over the market return. It is calculated by subtracting market return from the raw return of SME IPOs. It is used to check the extent to which IPOs beat the market returns.

$$MAER_{it} = [R_{it} - R_{mt}] \times 100 \quad .....(8.3)$$

$MAER_{it}$ = Market adjusted excess returns of SME firm i at time t
R_{it} = Raw return of SME firm i at time t
R_{mt} = Return on SME stock market index during period t

- **Wealth relative index (WRI):** It is an index used to check the magnitude of SME IPOs performance over the market. WRI value more than 1 implies that SME IPO outperformed the market and WRI value less than or equal to 1 signifies that SME IPO either underperformed or equally performed with the market.

$$\text{Wealth relative index (WRI)} = (1 + \text{Average of } R_{it}) / (1 + \text{Average of } R_{mt}) \quad .....(8.4)$$

R_{it} = Raw return of SME firm i at time t

R_{mt} = Return on SME stock market index during period t

Statistical Techniques

- **Karl Pearson correlation coefficient:** The coefficient of Pearson's correlation was calculated to check the level of linear relationship between the SME IPOs returns and SME stock market indices returns as well as to analyze the significance of relationship.
- **Two sample T test:** The two sample T test was used to check the mean difference between SME IPOs returns and SME stock market indices returns. T statistics value and P value would infer the level of differences in the mean value and it significance respectively.
- **Simple linear regression:** Simple linear regression is a statistical tool to check the effect of one independent variable of dependent variable. In this study simple regression was used to analyse the effect of short run and long run SME stock exchange indices returns on SME IPOs short run and long run returns.

8.2 Comparison and relationship between SMEs IPOs returns with the SME stock market returns

In this section it was tried to analyze and compare the short run and long run return performances of SMEs IPOs with short run and long run SME stock market indices returns. Yearly trend of BSE SME and NSE EMERGE which are two specifically designated stock exchanges in India for listing of SMEs securities were also analyzed.

8.2.1 Trends in performance of SME stock exchanges in India

Figure 8.1

Year wise performance trends of BSE SME and NSE SME indices were shown in figure 8.1 by taking data of BSE SME index and NSE SME index from 2012 to 2021. The line graph between year wise average closing index values of BSE SME and NSE SME as shown in figure 8.1 indicated that the indices of both stock exchanges BSE SME and NSE SME were in upward trend always from 2012 to 2021 and there were downturns for short period but in long run both indices values of BSE SME and NSE SME have always given positive returns. Between years 2018 and 2020 both indices showed downward performance indicates that both markets follow same trend.

8.2.2 Comparison of listing day SMEs IPOs returns with Indian SME stock markets indices returns

Figure 8.2

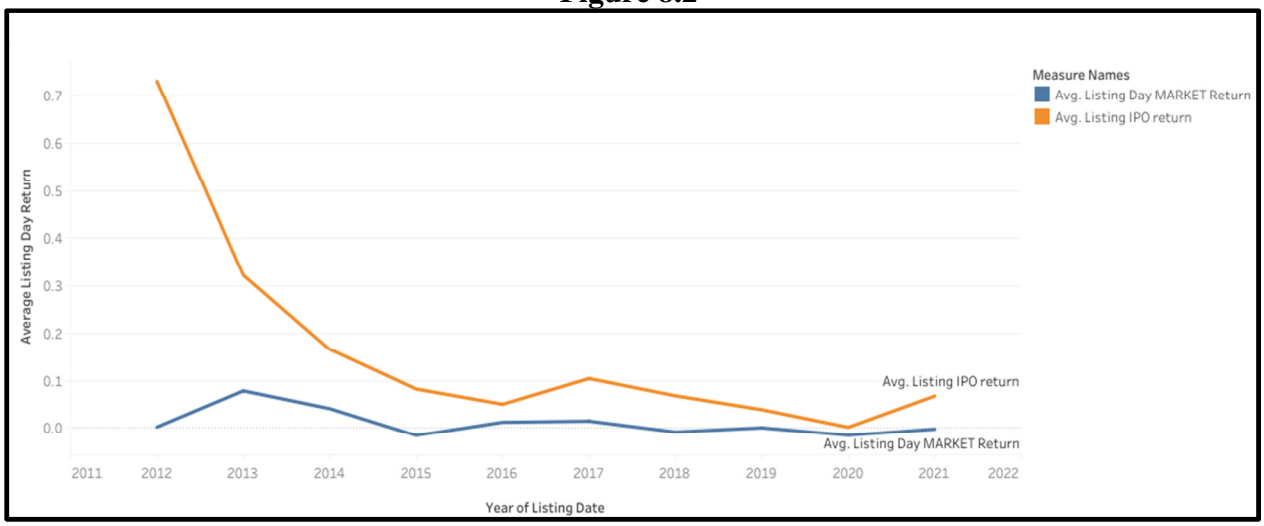


Figure 8.2 is showing the comparison of year wise average listing day returns of SME IPOs listed on BSE SME with year wise average listing day returns of BSE SME index through line graph.

Figure 8.3

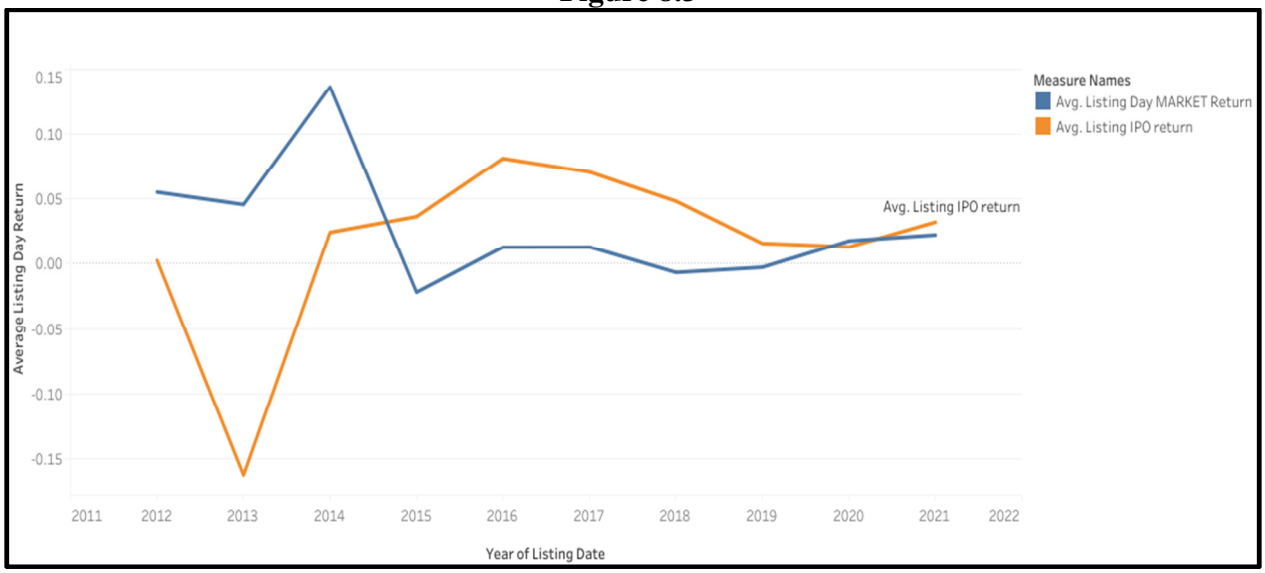


Figure 8.3 is showing the comparison of year wise average listing day returns of SME IPOs listed on NSE SME with year wise average listing day returns of NSE SME index through line graph.

From figure 8.2 this has been summarized that the average listing day returns for SME IPOs listed on BSE SME were always more than BSE SME index returns for time period from SME IPOs issue closing day till listing of SME IPOs. Year on year SMEs IPOs listing day returns have come down gradually from year 2012 to 2021 means that earlier SME IPOs used to give much more listing day returns as compared to subsequent years. The gap between SME IPOs listing day returns and BSE SME index returns for time period from SME IPOs issue closing day till listing of SME IPOs has become narrowed down over the years. BSE SME index returns for time period from SME IPOs issue closing day till listing of SME IPOs has not shown any kind of upward or downward trend remained almost stable from 2012 to 2021 concluded that market always moves with its own trend and returns from the market would be more in log run not in short run.

The inferences were drawn from figure 8.2 and figure 8.3 are similar to existing research studies (Arora & Singh, 2020; Babu & Dsouza, 2021; Choi et al., 2010; Sohail & Raheman, 2010; Zaluki et al., 2008; Kooli et al., 2003) related to listing day returns of initial public offerings belongs to different stock exchanges around the world as well as India that listing day returns are comparatively greater than market returns and gap between IPOs listing day returns and market returns has narrowed down.

8.2.3 Descriptive statistics of SME IPOs returns and SME stock indices returns

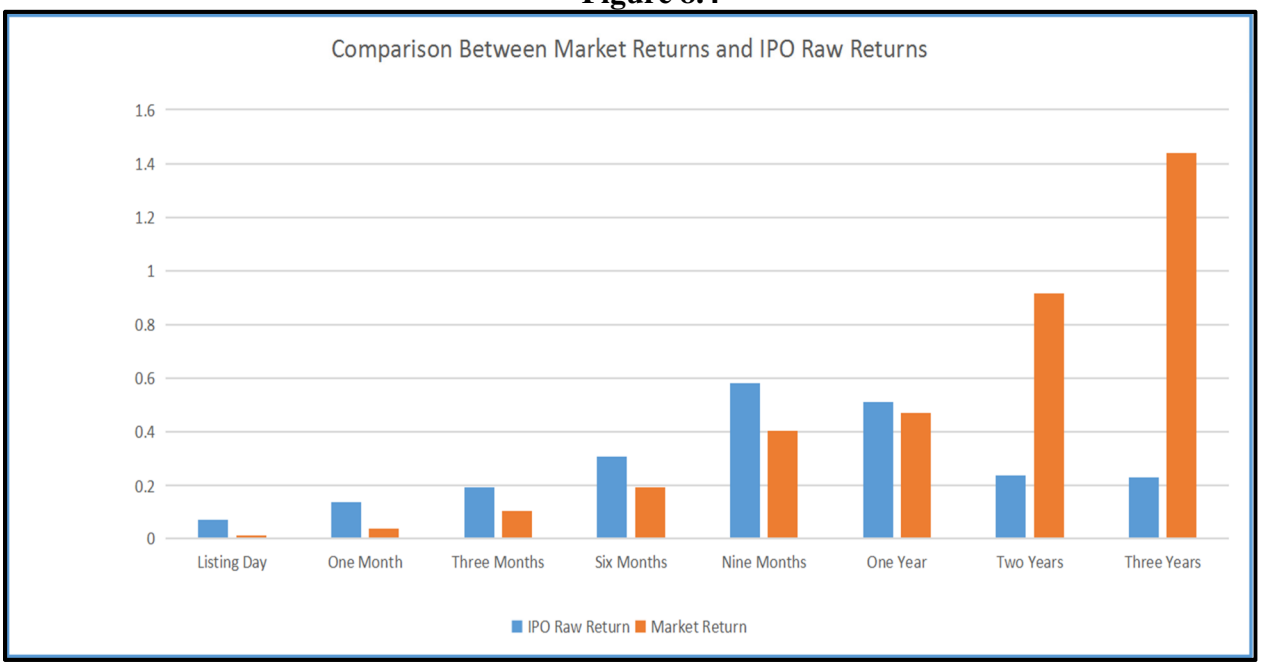
Table 8.1: Summary of SME IPOs returns and SME stock indices returns

Statistics	SME IPO								Market							
	Listing Day	Return after One Month	Return after Three Months	Return after Six Months	Return after Nine Months	Return after One Year	Return after Two Years	Return after Three Years	Listing Day	Return after One Month	Return after Three Months	Return after Six Months	Return after Nine Months	Return after One Year	Return after Two Years	Return after Three Years
Frequency	352	352	352	352	352	352	339	310	352	352	352	352	352	352	339	310
Average	7.04%	13.69%	19.53%	30.76%	58.13%	51.13%	23.97%	23.11%	0.48%	3.80%	10.40%	19.24%	40.06%	47.19%	91.74%	143.95%
STD. DEV.	23.81%	48.97%	74.13%	186.88%	552.72%	449.42%	155.00%	150.84%	3.57%	10.26%	25.79%	54.82%	130.78%	134.05%	236.53%	230.69%
Median	1.76%	0.86%	1.23%	1.05%	0.33%	-0.25%	-16.60%	-18.68%	0.47%	2.20%	3.12%	2.94%	2.20%	3.90%	13.59%	66.09%
Minimum	-44.75%	-62.84%	-64.05%	-83.27%	-88.61%	-87.21%	-94.85%	-98.82%	-12.80%	-14.78%	-26.27%	-22.56%	-27.38%	-32.54%	-38.10%	-31.57%
Maximum	241.25%	314.25%	643.87%	3061.76%	10069.36%	8017.94%	1233.33%	1446.45%	13.63%	62.55%	162.11%	386.36%	1031.98%	810.49%	1412.91%	1047.70%
Range	286.00%	377.09%	707.92%	3145.03%	10157.98%	8105.15%	1328.18%	1545.26%	26.43%	77.33%	188.38%	408.92%	1059.36%	843.02%	1451.01%	1079.27%

Table 8.1 was prepared to show the comparison of central tendency, dispersion and deviation of SME IPOs short run and long run returns with short run and long returns of SME stock indices returns. The information points which have been identified from the table 8.1 are given as:

- Mean returns of the SME IPOs were on much more higher side than SME stock indices returns for the short run means for less than a year time period on the other side mean returns of SME stock indices returns were become much more higher than SME IPOs returns for long run that means for more than one year time period.
- Standard deviation of SME IPOs returns was very high compared to SME stock exchange indices returns till the time period up to one year so the volatility and risk in SME IPOs were very high as compared to SME stock exchange indices returns hence investors must have very high level of risk appetite to invest in SME stocks and IPOs if they want to hold the SME stocks for maximum of one year. After one year the standard deviation in the SME stock exchange indices returns came on the higher side as compared to SME IPOs returns.
- Median of SME IPOs returns was observed as positive for short run means for less than a year and median returns of SME IPOs became negative for long run means for more than one year time period. This concluded that there were 50% chances of getting positive SME IPOs returns in short run and 50% chances of getting negative SME IPOs returns in the long run. On the other side median returns of SME stock exchange indices were always positive in the short run as well as in the long run and median returns of SME stock market in long run was comparatively higher than median returns of SME stock market in the short run. This could be concluded that there were at least 50% chances of getting more than 13% return from the SME stock exchange indices after one year time period.
- Minimum and maximum returns of SME IPOs were much more on higher side as compared to SME stock exchange returns for both in the short run and long run. This can be pointed out that dispersion and volatility is much higher in the SME IPOs prices so investors need to be very careful while investing in SME IPOs or stocks for both short run and long run.

Figure 8.4



From the figure 8.4 this was summarized that raw returns of SME IPOs were higher than SME stock exchanges indices returns in the short run and SME IPOs returns were lower than SME stock exchanges indices returns in the long run. It is suggested that if investor has higher risk appetite and want to generate higher returns in the short run the investor should go for SME IPOs and if investor want to generate higher returns with medium level of risk appetite the investor must invest in SME stock exchange indices.

8.2.4 Market adjusted excess returns (MAERs) and Wealth relative index (WRI)

Figure 8.5

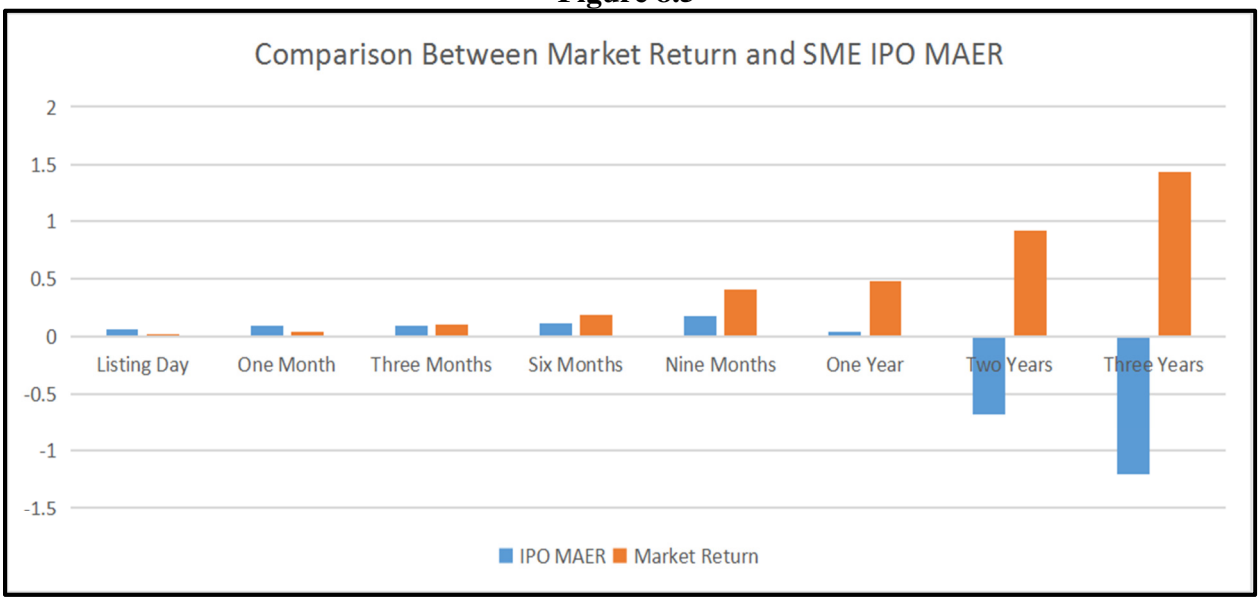


Table 8.2: Short run and long run WRI of SME IPOs

Type of Return	Listing Day	Return after One Month	Return after Three Months	Return after Six Months	Return after Nine Months	Return after One Year	Return after Two Years	Return after Three Years
Wealth Relative Index (WRI)	1.065	1.095	1.083	1.097	1.129	1.027	0.647	0.504

Market adjusted excess returns and wealth relative index of SME IPOs were calculated for both short run and long run and same have been shown in figure 8.5 and table 8.2 respectively.

From the figure 8.5 this has been observed that market adjusted excess returns (MAERs) of SME IPOs were maximum till nine months and after that MAERs started diminishing and become negative after one year so it can be extracted that investors can enjoy excess returns over the market returns for short run not for long run because in the long run market returns supersedes the returns produced by stocks.

Same observation and inference from the table 8.2 of wealth relative index (WRI) that SME IPOs over performed the SME stock exchanges for short run or for less than a year after that SME IPOs underperformed as compared to SME stock market.

8.2.5 Correlation and difference between SME IPOs returns and SME stock exchange indices returns

Values of correlation coefficients and T statistics have been calculated between SME IPOs returns and SME stock exchange indices through Karl Pearson correlation method and two independent samples T test respectively as shown in table 8.3.

Table 8.3: Correlation and T statistics B/W SME IPOs returns and SME stock exchange indices returns

Time Period	Type	Returns		Correlation and Sig.	T Statistics and P value
		Mean	STD. DEV		
Listing Day	MARKET	0.48%	3.57%	0.141** and 0.008	5.110*** and .000
	SME IPO	7.04%	23.81%		
One Month	MARKET	3.80%	10.26%	0.177** and 0.001	-3.708*** and .000
	SME IPO	13.69%	48.97%		
Three Months	MARKET	10.40%	25.79%	0.281*** and .000	-2.183* and 0.029
	SME IPO	19.53%	74.13%		
Six Months	MARKET	19.24%	54.82%	0.368*** and .000	-1.109 and 0.268
	SME IPO	30.76%	186.88%		
Nine Months	MARKET	40.06%	130.78%	0.393*** and .000	-.597 and 0.551
	SME IPO	58.13%	552.72%		
One Year	MARKET	47.19%	134.05%	0.338*** and .000	-.157 and .875
	SME IPO	51.13%	449.42%		
Two Years	MARKET	91.74%	236.53%	0.370*** and .000	4.413*** and .000
	SME IPO	23.97%	155.00%		
Three Years	MARKET	143.95%	230.69%	0.360*** and .000	7.719*** and .000
	SME IPO	23.11%	150.84%		

These correlation coefficients and T statistics values have been calculated to check the relationship and differences of means between SME IPOs returns and SME stock exchanges indices returns for the short run and long run.

To analyze the objective 5 of this research thesis under this chapter and to test statistically the null hypothesis related to objective as mentioned below the output table 8.3 of correlation coefficients and T statistics has been used.

Objective 5: To compare the short run and long run performance of SME public offerings with market performance.

Null Hypothesis H_{05}: *There is no difference between short run and long run performance of SME public offerings with market performance.*

The below given observations and information were extracted from the output as shown in table 8.3

- The correlations between listing day returns, one month returns and three months returns of SME IPOs and SME stock exchange indices were weak but significant. On the other hand the T statistics P values for same were calculated that came less than 0.05 which is significant that means the differences of average listing day returns, one month returns and three months returns between SME IPOs and SME stock exchange indices are significant. The mean returns of SME IPOs were higher than SME stock exchanges indices returns till the three months' time period. This can be concluded that SME IPOs returns for three months were higher and there was significant difference between SME IPOs returns and SME stock market returns for short run. SME stock market might have impact of SME IPOs return but impact of SME IPOs / public offerings may be more and significant as compared to market in the short run.
- The coefficients of correlations of six months, nine months and one year returns between SME IPOs and SME stock exchange indices were calculated as 0.385, 0.393 and 0.338 respectively and all these correlation values were significant at 5% significance level. The correlations between SME IPOs returns and SME stock exchanges indices returns from six months till one year time periods were higher and significant than correlations between SME IPOs returns and SME stock exchanges indices returns from listing day till three months' time periods. On the other hand the T statistics P values of SME IPOs and SME stock exchange indices mean returns for six months, nine months and one year time periods have come more than 0.05 at 5% significance level so the inference drawn was

that there were no differences of mean returns for six months, nine months and one year between SME IPOs and SME stock exchange indices but the returns of SME IPOs were higher than SME stock market returns for these periods. This might have been possible that returns of SME IPOs during these periods due to market sentiments or movement with the market as correlation between SME IPOs returns and SME stock market returns was positive.

- For the returns of SME IPOs and SME stock exchange indices for two years and three years' time periods, the correlation between SME IPOs and SME stock market were calculated as 0.370 and 0.360 respectively and all these values of correlation coefficients were significant at 5% significance level as P values of these correlation coefficients were come less than 0.05. This indicated that correlation among SME IPOs returns and SME stock market returns for two years and three years' time periods were higher and significant than correlation between SME IPOs returns and SME stock market returns for the time periods of listing day, one month and three months. On the other side T statistics P values of mean returns of SME IPOs and SME stock exchange indices for two and three years' time periods have come less than 0.05 at 5% significance level so the conclusion drawn was that there were significant differences in mean returns of SME IPOs and SME stock market for two and three years' time periods. But the mean returns of SME stock market were higher than SME IPOs returns for two and three years' time periods. This could be summarized again that in long run SME stock market out performed as compared to SME stocks and there can be significant difference between the mean returns of SME IPOs and SME stock market.

From the points mentioned above this has been concluded that mean returns of SME IPOs can be significantly different from mean returns of SME stock market in the short run and long run except for the returns of six months, nine months and one year time periods. So the null hypothesis of objective 5 of this research thesis under this chapter that short run and long run returns of SME IPOs are not different from market returns cannot be accepted. In the short run SME IPOs returns may outperforms the market and in long run SME stock market returns could outperform over SME public offerings or individual SME stock.

8.2.6 Effect of SMEs stock market performance on SME IPOs performance

In this section of this chapter the simple linear bivariate regression was applied between SMEs stock exchange indices returns and SME IPOs returns. In the regression SME stock exchanges indices returns were taken as independent variables separately according to each time period and SME IPOs returns were taken as dependent variables separately according to each time period. The regression was applied on all types of short run and long run returns to study the significance and effect of SME stock market returns on SME IPOs returns. The output table 7.4 of simple linear regression has been given below.

Table 8.4: Output of simple linear regression between SME IPOs and SME stock market returns

Dependent Variable	R Square / Adj. R Sqaure	ANOVA F	ANOVA Sig.	Name of Independent Variable	Unstandardized Beta Coefficients	t value	Sig. Value
Listing Day SME IPO Return	0.020	7.073	0.008	Intercept	0.0659	5.189	3.6E-07
				Listing Day Market Return	0.9379	2.660	8.2E-03
SME IPO 1M Return	0.031	11.345	0.001	Intercept	0.1047	3.816	1.6E-04
				1M Market Return	0.8461	3.368	8.4E-04
SME IPO 3M Return	0.079	30.063	0.000	Intercept	0.1112	2.717	6.9E-03
				3M Market Return	0.8084	5.483	8.0E-08
SME IPO 6M Return	0.135	54.798	0.000	Intercept	0.0662	0.673	5.0E-01
				6M Market Return	1.2543	7.403	1.0E-12
SME IPO 9M Return	0.154	63.911	0.000	Intercept	-0.0840	-0.296	7.7E-01
				9M Market Return	1.6608	7.994	1.9E-14
SME IPO 12M Return	0.114	45.255	0.000	Intercept	-0.0241	-0.101	9.2E-01
				12M Market Return	1.1345	6.727	7.1E-11
SME IPO 24M Return	0.137	53.473	0.000	Intercept	0.0172	0.205	8.4E-01
				24M Market Return	0.2425	7.313	1.9E-12
SME IPO 36M Return	0.130	46.002	0.000	Intercept	-0.1081	-1.148	2.5E-01
				36M Market Return	0.2354	6.782	6.0E-11

The observations and information extracted from table 8.4 have been discussed as:

- According to table 8.4 the SME stock exchange indices returns were significantly impacting the SME IPOs returns from the listing day till 36 months' time periods as the ANOVA F statistics significant values were calculated as 0.000 which is less than 0.05 for all the regressions between SME IPOs returns and SME stock market returns.
- The coefficients of determination R squared values for returns of listing day, one month, three months, six months , nine months, twelve months, 24 months and 36 months were observed as 2%, 3.1%, 7.9%, 13.5%, 15.4%, 11.4%, 13.7% and 13% respectively

indicated that the power of determining SME IPOs performance by SME stock exchange indices was low in the short run but as time duration become longer the determining power of SME stock exchange indices as predictors were increased. This was due to moderate significant correlation between SME IPOs returns and SME stock market returns in the long run as given in table 8.3. As per table 8.4 the unstandardized beta coefficients of SME stock exchange indices returns for listing day, one month, three months, six months , nine months, twelve months, 24 months and 36 months have been calculated as 0.9379, 0.8464, 0.808, 1.254, 1.6608, 1.134, 0.2425 and 0.2354 respectively. These all unstandardized beta coefficients of SME stock exchange indices returns were observed as positive and significant summarized that the relationship between SME IPOs performance and SME stock market performance was positive.

From the above observations and information which were extracted from the table 8.4 this has been concluded that the SME stock market may better determine the SME IPOs performance in the long run and SME stock market movement could impact the performance of SME stocks in the long run.

CHAPTER 9

FINDINGS, CONCLUSION AND SUGGESTIONS

Every research thesis has to end with findings and conclusion along with suggestion. For comprehensive and conclusive research thesis findings, conclusions and suggestions need to be in synchronization. In this research it has been tried to best extent to achieve the same.

SMEs play significant role in the country's socio economic growth. SMEs generally have capital requirements for the expansion and growth through capital expenditures. The capital requirements of SMEs are fulfilled by various channels and alternatives of debt and equity. Indian SMEs are allowed to raise the capital through public offerings of securities and these SMEs have specifically designated platforms like BSE SME and NSE EMERGE to list their securities which are offered to public. Firms who are going to be public and already public have to disclose their financial and non-financial information through different types of disclosures as per Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations. SMEs public offerings primary and secondary capital market investors might have the requirement of some valuation model through which valuations of public offerings could be done with the help of key-financial and non-financial information.

Therefore this study has been attempted to identify the various factors from key-financial information and non-financial disclosures for SME public offerings valuation. This research has also provided the valuation models for pre listing and post listing of SMEs public offerings along with examining the role of Indian SME stock exchanges in the performance SMEs public offerings for short run and long as well as the comparison of SMEs stocks performance with SME stock market performance.

According the above mentioned problem statements this chapter discusses the findings of this research and based on findings of the study conclusion and suggestion are also illustrated. This chapter divides into three sections. Section 9.1 demonstrates the findings of the research study. Section 9.2 explains about the conclusions of the study and section 9.3 throw light on suggestions and future scope of the study.

9.1 Findings

This section reveals the findings related to objectives of this study which would be elaborated in the subsequent subsections according to pre listing valuations of SMEs public offerings and post listing valuations of SMEs public offerings along with examining the role of Indian SME stock exchanges in the performance SMEs public offerings as well as the comparison of SMEs stocks performance with SME stock market performance.

9.1.1 Findings related to subscriptions and pre listing valuations of SMEs public offerings

- Market Maker Reserve positively affects and Net Issue of Shares negatively affects the market makers subscription of SMEs IPOs whereas PBITM (%) positively affects and APATM (%) negatively affects the market makers subscription of SMEs IPOs. As market makers have to subscribe at least 100% of theirs shares which are kept as reserved for them so this could be concluded that if more proportion will be reserved for market markers by reducing net issue size then the market makers subscription will be more and it may go beyond 100% if the gross profit margins (PBITM) of the SMEs would be high but reverse may be true for net profit margins (APATM).
- The retail investors want to subscribe more if the SME stock is listed on SME platform of NSE named as NSE EMERGE. The variable Prior Market Returns directly affects retail investor's subscription of SME IPOs and also indicates that the retail investor's subscription would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. The variable IB Total Listings reveals the role of investment banker in SMEs IPOs subscription which indicates that number of number of IPOs handled by investment banker during the time period prior to the SME IPO affects positively retail investors subscription of SME IPOs so the more the number of IPOs handled by investment banker, the retail investors subscription of IPO may be high because investors may think that investment banker might get better experience in making the IPOs successful. The variable Firm Age also contributes positively in the retail investor's subscription of SMEs IPOs indicates that older the SME firm the chances of getting public offerings issue subscribed would be more by retail investors. The only variable Return on Capital Employed which is related to key-financials also influences

the retail investors subscription of SMEs IPOs directly states that the retail investors would prefer to subscribe those SME IPOs having higher returns on invested capital.

- The non-retail investors want to subscribe more if the SME stock is listed on SME platform of NSE named as NSE EMERGE. The variable Prior Market Returns directly affects non-retail investor's subscription of SME IPOs and also indicates that the non-retail investor's subscription would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. The only variable Return on Capital Employed which is related to key-financials also influences the non-retail investors subscription of SMEs IPOs directly states that the non-retail investors would prefer to subscribe those SME IPOs having higher returns on invested capital.
- The overall investors want to subscribe more if the SME stock is listed on SME platform of NSE named as NSE EMERGE. The variable Prior Market Returns directly affects overall subscription of SME IPOs and also indicates that the overall subscription would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. The variable IB Positive Listings reveals the role of investment banker in subscription of SMEs IPOs which indicates that number of IPOs handled by investment banker in which IPO is underpriced or provided positive return to the investor during the time period prior to the SME IPO affects positively overall subscription of SME IPOs so the more the number of IPOs provided positive returns handled by investment banker higher would be the overall subscription of IPOs because investors may think that investment banker might get better experience in making the IPOs successful and getting positive listing. The only variable Return on Capital Employed which is related to key-financials also influences the overall subscription of SMEs IPOs directly states that the overall investors would prefer to subscribe those SME IPOs having higher returns on invested capital.
- Issue Size (Value) confers positively in the issue price of SMEs IPOs manifests that more the value of the total issue size issue price would be valued higher. Net Issue of Shares contributes negatively in the determination of issue price of SME IPOs reveals that if the total number of shares available for investors other than market makers is high then issue price would be valued lower due to lower gap of demand and supply. Market Makers %age Allocation negatively influences the issue price of SME IPOs states that more

would be reserve of shares for market makers less would be the issue price because market makers have to be allotted their all reserved securities and if more number of shares would be reserved for market makers then less number of shares would be available for other types of investors who are responsible to bring the significant demand and hence high issue price. The variable Non-Retail Investors %age Allocation contributes directly in determining issue price of SME IPOs means that more percentage allocation to non-retail investors brings the issue price of SME IPOs on higher side because the buying capacity of non-retail investors is comparatively higher than retail investors as it includes high net worth individuals and institutional investors who can buy in bulk and create more positive sentiment for the SMEs IPOs. IB Success Rate is the percentage of IPOs which are underpriced or provided positive returns from the total number of IPOs handled by investment banker during the time period prior to SME IPOs and this IB Success Rate positively links with issue price of SME IPOs indicates that capability of investment banker to bring positive listing of SME IPOs influences the issue price of IPOs directly. Long Term Debt-Equity Ratio imply oppositely in the determination of issue price of SMEs IPOs infers that SMEs having higher long term debt capital compared to equity capital may not expect premium price for the securities offered to the public. The key-financial Interest Cover Ratio has positive coefficient in determining issue price of SMEs IPOs ascertains that the SMEs those having high capacity to full its long term debt obligation can expect more premium on the issue price for the securities offered to the public and same is true for key-financial PBDTM (%) which is the profit margin of adjusted gross profit over sales.

9.1.2 Findings related to post listing valuations of SMEs public offerings

- The Overall Subscription of SMEs IPOs determines the value of listing day opening price of SME IPOs directly which means that the higher IPOs overall subscription leads to higher opening price of stock on the listing day. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues on the opening of SME stocks on the day of listing. Company Type variable is a dummy variable deduce that secondary market investors of SME stocks give more preference SMEs stocks having

services or trade types of business operations as compared to SMEs having manufacturing or production types of business on the opening of SME stocks on the day of listing. Market Makers %age Allocation positively influences the listing day opening price of SME IPOs states that more would be reserve of shares for market makers high would be the listing day opening price because market makers have to provide liquidity for that particular stock in the secondary so more allotment to market makers more liquidity for the stock in the secondary market and secondary investors may easily exit and enter. The variable Offer Price contributes directly in determining listing day opening price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the listing day opening price of SME IPOs on higher side. Board Size contributes positively in the determination of listing day opening price of SME IPOs reveals that if the total number of directors in the firm's board is high then listing day opening price would be valued higher may be due to secondary investor's perception of better and effective decision making capacity. Standalone variable is a dummy variable infers that secondary market investors of SME stocks give more preference SME companies having affiliation with other companies or group of companies as compared to SME companies having no affiliation on the opening of SME stocks on the day of listing. The variable Prior Market Returns directly affects the listing day opening price of SME IPOs and also indicates that the listing day opening price would be high if the SME stock market short term returns are positive before the opening of SME IPO issue. IB Success Rate is the percentage of IPOs which are underpriced or provided positive returns from the total number of IPOs handled by investment banker during the time period prior to SME IPOs and this IB Success Rate positively links with listing day opening price of SME IPOs indicates that capability of investment banker to bring positive listing of SME IPOs influences the listing day opening price of IPOs directly.

- The Overall Subscription of SMEs IPOs determines the value of listing day closing price of SME IPOs directly which means that the higher IPOs overall subscription leads to higher closing price of SMEs stocks on the listing day. Stock exchange variable is a dummy variable that indicates that the secondary market investors of SMEs stocks prefer to trade SMEs IPOs at higher price on the listing day at SME platform of BSE named as BSE SME as compared to SME platform on NSE called as NSE EMERGE. Company

Type variable is a dummy variable deduce that secondary market investors of SME stocks give more preference SMEs stocks having services or trade types of business operations as compared to SMEs having manufacturing or production types of business on the day of listing of SME stocks. Issue Size (Value) confers positively in determining the listing day closing prices of SMEs IPOs manifests that more the value of the total issue size, listing day closing price would be valued higher. Net Issue of Shares contributes positively in the determination of listing day price of SME IPOs reveals that if the total number of shares available for investors other than market makers is high then listing day closing price would be valued higher due to more supply of shares for secondary investors of SMEs stocks. The variable Shares Allotted to Retail Investors Allocation contributes inversely in determining listing day closing price of SME IPOs means that more allocation to retail investors brings the listing day closing price of SME IPOs on down side. Market Makers %age Allocation positively influences the listing day closing price of SME IPOs states that more would be reserve of shares for market makers high would be the listing day closing price because market makers have to provide liquidity for that particular stock in the secondary so more allotment to market makers more liquidity for the stock in the secondary market and secondary investors may easily exit and enter. The variable Offer Price contributes directly in determining listing day closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the listing day closing price of SME IPOs on higher side. IB Success Rate is the percentage of IPOs which are underpriced or provided positive returns from the total number of IPOs handled by investment banker during the time period prior to SME IPOs and this IB Success Rate positively links with listing day closing price of SME IPOs indicates that capability of investment banker to bring positive listing of SME IPOs influences the listing day closing price of IPOs directly.

- The retail subscription of SMEs IPOs determines the value of one month closing price of SME IPOs directly which means that the higher IPOs retail subscription leads to higher one month closing price of SMEs stocks from the listing day. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues even after one month from the day of listing of SMEs IPOs. The variable Non-Retail

Investors %age Allocation contributes directly in determining one month closing price of SME IPOs means that more percentage allocation to non-retail investors brings the one month closing price of SME IPOs on higher side because the buying capacity of non-retail investors is comparatively higher than retail investors as it includes high net worth individuals and institutional investors who can buy in bulk and create more positive sentiment for the SMEs IPOs. The variable Listing Day Closing Price contributes directly in determining one moth closing price of SME IPOs means that SME IPO closed with more price on the listing day from the issue price brings the one month closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after one month from the day of listing. The variable Prior Market Returns inversely affects the one month closing price of SME IPOs and also indicates that the one month closing price would be high if the SME stock market short term returns would be on downside at the time of three months before opening of SME IPOs issue. This may be due to the secondary market investor perception of expecting high price of SME IPOs after one month from listing day as a compensation of down market at the time SME IPOs issue opening. The variable Listing Delay which is number of days between listing date and SME IPO issue closing date, this listing delay influences oppositely to determine the one month SMEs IPOs price indicates that the IPOs should avoid listing delay else it may negatively impact for short run the valuation of stocks in the secondary market. The variable Firm Age also contributes positively in the one month price of SMEs IPOs indicates that older the SME firms stocks would be values high even after one month from the listing. The key-financial Fixed Assets Turnover has positive coefficient in determining one month closing price of SMEs IPOs ascertains that the SMEs those having high capacity to utilize its fixed asset to generate revenues can expect more valuation in the price of the securities listed on the SME stock market. The variable Debtors Turnover determine inversely the one month closing price of SMEs IPOs which mean that the SMEs those having high debtor turnover their stocks would be valued on low side in the secondary market for short run.

- The Overall Subscription of SMEs IPOs determines the value of three months closing price of SME IPOs negatively which means that the higher IPOs overall subscription leads to lower three months closing price of SMEs stocks from the listing day. The variable Offer Price contributes oppositely in determining three months closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the valuation of three months closing price of SME IPOs on the lower side. The variable Listing Day Closing Price contributes directly in determining three months closing price of SME IPOs means that SME IPO closed with high price on the listing day from the issue price brings the three months closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after three months from the day of listing. The variable IB Total Listings reveals the role of investment banker in three months closing price of SMEs IPOs which indicates that number of number of IPOs handled by investment banker during the time period prior to the SME IPO affects positively three months closing price of SMEs IPOs so the more the number of IPOs handled by investment banker, three months closing price of SMEs IPOs may be high because investors may think that investment banker might get better experience in making the IPOs successful. The variable Listing Delay which is number of days between listing date and SME IPO issue closing date, this listing delay influences oppositely to determine the three months closing price of SMEs IPOs indicates that the IPOs should avoid listing delay else it may negatively impact for short run the valuation of stocks in the secondary market. The variable Firm Age also contributes positively in the three months closing price of SMEs IPOs indicates that older the SME firms stocks would be values high even after three months from the listing. The key-financial Fixed Assets Turnover has positive coefficient in determining three months closing price of SMEs IPOs ascertains that the SMEs those having high capacity to utilize its fixed asset to generate revenues can expect more valuation in the price of the securities listed on the SME stock market. The variable Return on Capital Employed which is related to key-financials also influences the three months closing price of SMEs IPOs directly states that the investors would do valuation

on higher side of those SMEs stocks having higher SME firm's returns on invested capital.

- The secondary market investors of SMEs stocks prefer to trade SMEs IPOs at higher price even after six months from the listing day at SME platform of BSE named as BSE SME as compared to SME platform on NSE called as NSE EMERGE. Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues even after six months from the day of listing of SMEs IPOs. The variable Offer Price contributes oppositely in determining six months closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the valuation of six months closing price of SME IPOs on the lower side. The variable Listing Day Closing Price contributes directly in determining six months closing price of SME IPOs means that SME IPO closed with high price on the listing day from the issue price brings the six months closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after six months from the day of listing. The key-financial Fixed Assets Turnover has positive coefficient in determining six months closing price of SMEs IPOs ascertains that the SMEs those having high capacity to utilize its fixed asset to generate revenues can expect more valuation in the price of the securities listed on the SME stock market. The key-financial Interest Cover Ratio has positive coefficient in determining six months closing price of SMEs IPOs ascertains that the SMEs those having high capacity to fulfill its long term debt obligation can expect better valuation for the equity securities listed on SMEs stocks exchanges. The variable Return on Capital Employed which is related to key-financials also influences the six months closing price of SMEs IPOs directly states that the investors would do valuation on higher side of those SMEs stocks having higher SME firm's returns on invested capital.
- The secondary market investors of SMEs stocks prefer to trade SMEs IPOs at higher price even after nine months and one year from the listing day at SME platform of BSE named as BSE SME as compared to SME platform on NSE called as NSE EMERGE.

Issue Type variable is a dummy variable indicates that the secondary market investors of SME stocks give more valuation to book building SMEs public issues as compared to fixed price public issues even after nine months and one year from the day of listing of SMEs IPOs. The variable Offer Price contributes oppositely in determining nine months and one year closing price of SME IPOs means that SMEs IPOs issued with more premium price from the face value brings the valuation of nine months and one year closing price of SME IPOs on the lower side. The variable Listing Day Closing Price contributes directly in determining nine months and one year closing price of SME IPOs means that SME IPO closed with high price on the listing day from the issue price brings the nine months and one year closing price of SME IPOs on higher side. The variables Private and Standalone are the dummy variables infer that secondary market investors of SME stocks are bullish for SME companies having affiliation with other foreign group companies as compared to SME companies having no affiliation or private group affiliation even after nine months and one year from the day of listing. The variable IB Total Listings reveals the role of investment banker in nine months and one year closing price of SMEs IPOs which indicates that number of number of IPOs handled by investment banker during the time period prior to the SME IPO affects positively nine months and one year closing price of SME IPOs on the SME stock exchange so the more the number of IPOs handled by investment banker, the investors may be bullish for SME stock. The variable IB Positive Listings disseminate the role of investment banker in price valuation of SMEs IPOs after nine months and one year from the listing signify that number of IPOs handled by investment banker in which IPO is underpriced or provided positive return to the investor during the time period prior to the SME IPO affects inversely the price valuation of SME IPOs so the more the number of IPOs provided positive returns handled by investment banker lower would be the price of IPOs on stock exchange. The key-financial Interest Cover Ratio has positive coefficient in determining nine months and one year closing price of SMEs IPOs ascertains that the SMEs those having high capacity to fulfill its long term debt obligation can expect better valuation for the equity securities listed on SMEs stocks exchanges. The variable Return on Capital Employed which is related to key-financials also influences the nine months and one year

closing price of SMEs IPOs directly states that the investors would do valuation on higher side of those SMEs stocks having higher SME firm's returns on invested capital.

9.1.3 Findings related to Comparison and relationship of SMEs public offerings performance with market performance

- The line graph between year wise average closing index values of BSE SME and NSE SME as shown in figure 8.1 indicated that the indices of both stock exchanges BSE SME and NSE SME were in upward trend always from 2012 to 2021 and there were downturns for short period but in long run both indices values of BSE SME and NSE SME have always given positive returns. Between years 2018 and 2020 both indices showed downward performance indicates that both markets follow same trend.
- From figure 8.2 this has been summarized that the average listing day returns for SME IPOs listed on BSE SME were always more than BSE SME index returns for time period from SME IPOs issue closing day till listing of SME IPOs. Year on year SMEs IPOs listing day returns have come down gradually from year 2012 to 2021 means that earlier SME IPOs used to give much more listing day returns as compared to subsequent years. The gap between SME IPOs listing day returns and BSE SME index returns for time period from SME IPOs issue closing day till listing of SME IPOs has become narrowed down over the years. BSE SME index returns for time period from SME IPOs issue closing day till listing of SME IPOs has not shown any kind of upward or downward trend remained almost stable from 2012 to 2021 concluded that market always moves with its own trend and returns from the market would be more in log run not in short run.
- The mean returns of the SME IPOs were on much more higher side than SME stock indices returns for the short run means for less than a year time period on the other side mean returns of SME stock indices returns were become much more higher than SME IPOs returns for long run that means for more than one year time period.
- The standard deviation of SME IPOs returns was very high compared to SME stock exchange indices returns till the time period up to one year so the volatility and risk in SME IPOs were very high as compared to SME stock exchange indices returns hence investors must have very high level of risk appetite to invest in SME stocks and IPOs if they want to hold the SME stocks for maximum of one year. After one year the standard

deviation in the SME stock exchange indices returns came on the higher side as compared to SME IPOs returns.

- The median of SME IPOs returns was observed as positive for short run means for less than a year and median returns of SME IPOs became negative for long run means for more than one year time period. This concluded that there were 50% chances of getting positive SME IPOs returns in short run and 50% chances of getting negative SME IPOs returns in the long run. On the other side median returns of SME stock exchange indices were always positive in the short run as well as in the long run and median returns of SME stock market in long run was comparatively higher than median returns of SME stock market in the short run. This could be concluded that there were at least 50% chances of getting more than 13% return from the SME stock exchange indices after one year time period.
- Minimum and maximum returns of SME IPOs were much more on higher side as compared to SME stock exchange returns for both in the short run and long run. This can be pointed out that dispersion and volatility is much higher in the SME IPOs prices so investors need to be very careful while investing in SME IPOs or stocks for both short run and long run.
- From the figure 8.5 and table 8.2 this has been observed that market adjusted excess returns (MAERs) of SME IPOs were maximum till nine months and after that MAERs started diminishing and become negative after one year so it can be extracted that investors can enjoy excess returns over the market returns for short run not for long run because in the long run market returns supersedes the returns produced by stocks.
- The correlations between listing day returns, one month returns and three months returns of SME IPOs and SME stock exchange indices were weak but significant. On the other hand the T statistics P values for same were calculated that came less than 0.05 which is significant that means the differences of average listing day returns, one month returns and three months returns between SME IPOs and SME stock exchange indices are significant. The mean returns of SME IPOs were higher than SME stock exchanges indices returns till the three months' time period. This can be concluded that SME IPOs returns for three months were higher and there was significant difference between SME IPOs returns and SME stock market returns for short run. SME stock market might have

impact of SME IPOs return but impact of SME IPOs / public offerings may be more and significant as compared to market in the short run.

- The coefficients of correlations of six months, nine months and one year returns between SME IPOs and SME stock exchange indices were calculated as 0.385, 0.393 and 0.338 respectively and all these correlation values were significant at 5% significance level. The correlations between SME IPOs returns and SME stock exchanges indices returns from six months till one year time periods were higher and significant than correlations between SME IPOs returns and SME stock exchanges indices returns from listing day till three months' time periods. On the other hand the T statistics P values of SME IPOs and SME stock exchange indices mean returns for six months, nine months and one year time periods have come more than 0.05 at 5% significance level so the inference drawn was that there were no differences of mean returns for six months, nine months and one year between SME IPOs and SME stock exchange indices but the returns of SME IPOs were higher than SME stock market returns for these periods. This might have been possible that returns of SME IPOs during these periods due to market sentiments or movement with the market as correlation between SME IPOs returns and SME stock market returns was positive.
- The returns of SME IPOs and SME stock exchange indices for two years and three years' time periods, the correlation between SME IPOs and SME stock market were calculated as 0.370 and 0.360 respectively and all these values of correlation coefficients were significant at 5% significance level as P values of these correlation coefficients were come less than 0.05. This indicated that correlation among SME IPOs returns and SME stock market returns for two years and three years' time periods were higher and significant than correlation between SME IPOs returns and SME stock market returns for the time periods of listing day, one month and three months. On the other side T statistics P values of mean returns of SME IPOs and SME stock exchange indices for two and three years' time periods have come less than 0.05 at 5% significance level so the conclusion drawn was that there were significant differences in mean returns of SME IPOs and SME stock market for two and three years' time periods. But the mean returns of SME stock market were higher than SME IPOs returns for two and three years' time periods. This could be summarized again that in long run SME stock market out

performed as compared to SME stocks and there can be significant difference between the mean returns of SME IPOs and SME stock market.

- The SME stock exchange indices returns were significantly impacting the SME IPOs returns from the listing day till 36 months' time periods as the ANOVA F statistics significant values were calculated as 0.000 which is less than 0.05 for all the regressions between SME IPOs returns and SME stock market returns.
- The coefficients of determination R squared values for returns of listing day, one month, three months, six months , nine months, twelve months, 24 months and 36 months were observed as 2%, 3.1%, 7.9%, 13.5%, 15.4%, 11.4%, 13.7% and 13% respectively indicated that the power of determining SME IPOs performance by SME stock exchange indices was low in the short run but as time duration become longer the determining power of SME stock exchange indices as predictors were increased. This was due to moderate significant correlation between SME IPOs returns and SME stock market returns in the long run as given in table 8.3. As per table 8.4 the unstandardized beta coefficients of SME stock exchange indices returns for listing day, one month, three months, six months , nine months, twelve months, 24 months and 36 months have been calculated as 0.9379, 0.8464, 0.808, 1.254, 1.6608, 1.134, 0.2425 and 0.2354 respectively. These all unstandardized beta coefficients of SME stock exchange indices returns were observed as positive and significant summarized that the relationship between SME IPOs performance and SME stock market performance was positive.

9.2 Conclusions

Relationship of key-financials and non-financial disclosures of SMEs public offerings with pre listing performance and post listing performance of SMEs IPOs has been studied in this research along with comparison and relationship of SMEs public offerings performance with market performance. Based on findings as mentioned above conclusions are made as given below.

- Key-financials and non-financial disclosures may be used to predict the subscriptions of SMEs public offerings significantly up to some extent for upcoming SME IPOs. The variables Stock Exchange, Prior Market Returns, IB Total Listings and Firm Age belong to non-financial disclosures and the variable Return on Capital Employed belongs to key-

financials would be mainly used to predict the SMEs IPOs subscriptions related to investors other that market makers.

- Key-financials and non-financial disclosures may be used to estimate the value of issue price of SMEs public offerings significantly up to great and significant extent for upcoming SME IPOs. The variables Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Non-Retail Investors %age Allocation and IB Success Rate belong to non-financial disclosures and the variables Long Term Debt-Equity Ratio, Interest Cover Ratio and PBDTM (%) belong to key-financials would be mainly used to do the valuations of SMEs IPOs issue and offer prices which would be helpful in better decision making for SME firms as capital raisers and investors as capital providers from Indian capital market.
- Key-financials and non-financial disclosures may be used to assess the value of listing day opening and closing prices of SMEs public offerings significantly up to great and significant extent for upcoming SME IPOs. The variables Overall Subscription, Company Type, Issue Size (Value), Net Issue of Shares, Market Makers %age Allocation, Offer Price and IB Success Rate belong to non-financial disclosures and the no variable belong to key-financials would be mainly used to do the valuations of SMEs IPOs listing day prices which would be helpful in better decision making and valuations for SMEs stock investors in the secondary market.
- Key-financials and non-financial disclosures may be used to assess the value of post listing closing prices of SMEs public offerings up to great and significant extent for upcoming SME IPOs. These non-financial disclosures and key-financials would be mainly used to do the valuations of SMEs IPOs post listing prices after one month, three months, six months, nine months and one year which would be helpful in better decision making and valuations for SMEs stock investors in the secondary market. As the time gap from the listing day increase the determination capacity of valuation models for post listing prices come down this concludes that in the long run updated key-financials and non-financial disclosures information might be useful for better determination of post listing share prices for SMEs stock which have already listed for more than nine months on SME stock exchanges.

- SME IPOs Listing day returns are comparatively greater than SME stock market returns and gap between IPOs listing day returns and market returns has narrowed down over the years.
- Raw returns of SME IPOs were higher than SME stock exchanges indices returns in the short run and SME IPOs returns were lower than SME stock exchanges indices returns in the long run. It is suggested that if investor has higher risk appetite and want to generate higher returns in the short run the investor should go for SME IPOs and if investor want to generate higher returns with medium level of risk appetite the investor must invest in SME stock exchange indices.
- Wealth relative index (WRI) of SME IPOs over performed the SME stock exchanges for short run or for less than a year after that SME IPOs underperformed as compared to SME stock market.
- Mean returns of SME IPOs can be significantly different from mean returns of SME stock market in the short run and long run except for the returns of six months, nine months and one year time periods. So the null hypothesis of objective 5 of this research thesis under this chapter that short run and long run returns of SME IPOs are not different from market returns cannot be accepted. In the short run SME IPOs returns may outperforms the market and in long run SME stock market returns could outperform over SME public offerings or individual SME stock.
- SME stock market may better determine the SME IPOs performance in the long run and SME stock market movement could impact the performance of SME stocks in the long run.

9.3 Suggestions and Scope

Based on findings and conclusions of this study some suggestions and future scope are proposed which are related to valuations of SMEs stocks in the primary and secondary market. These suggestions may be helpful for different types of investors like, retail, HNIs, institutional, private equity, venture capitalists and many more etc. for better decision making regarding investments in SMEs.

- Investors should critically analyze the key-financials and non-financial disclosures to reach the final decision of investments in SMEs.
- Investors may use models as suggested in chapter 4 from equations 4.1, 4.2, 4.3 and 4.4 to predict the different types of SMEs IPOs subscription by market makers, retail investors, non-retail and overall respectively.
- Investors and SME firms may also use the results to do pricing of SMEs IPOs by using models as framed in chapter 5 from equation 5.1 to do valuation of SMEs IPOs and the issue of underpricing can be controlled up to some extent which would be helpful for capital raisers.
- Investors can take help of models as suggested in chapter 6 from equations 6.1 and 6.2 to estimate the listing day price performance of SMEs IPOs. These models would help the secondary market investors to take long and short decisions related to SMEs stocks.
- Secondary market investors should use the models as guided in chapter 7 from equations 7.1, 7.2, 7.3, 7.4 and 7.5 to do valuation of SMEs stocks in the secondary market. The secondary market investors may judge better about holding of SMEs stocks or selling of SMEs stocks. Even for private equity firms, venture capital firms, angel investors and other acquiring companies could employ these models for taking informative decisions of investments in SMEs.
- All the suggested models related to this study have been derived from analysis data related to SMEs IPOs offered common equity securities so these models cannot be generalized for other types of companies and securities.
- It is suggested that investors of SMEs IPOs should not always expect higher abnormal returns form positive listing gains or underpricing as the gap between IPOs listing day returns and market returns has narrowed down over the years.
- It is suggested that if investor has higher risk appetite and want to generate higher returns in the short run the investor should go for SME IPOs and if investor want to generate higher returns with medium level of risk appetite the investor must invest in SME stock exchanges indices.
- Comparison between returns of SME stock exchanges and other main streams stock exchanges can be further studied along with its effect of SMEs stocks pricing performance for short and long run.

- Similar type of valuations study can be further carried out for securities other than equity along with the considerations of SMEs intellectual capital.
- Contribution individual SME stock can be further analyzed in SMEs stock market performance through time series studies.

REFERENCES

Arora, N., & Singh, B. (2024). Do prestigious underwriters shape the performance of SME IPOs in India?. *Global Business Review*, *25*(3), 632-655.

Siwach, P. A. R. V. E. E. N., & Kumar, P. R. (2023). Determinants of underpricing in initial public offerings of small and medium enterprises. *Annals of Agribio Research*, *28*(1), 146-151.

Srivastava, H., Solomon, P., & Singh, S. P. (2022), "Oversubscription of Initial Public Offerings of SMEs in India: A Quantile Regression Analysis", *Indian Journal of Finance*, *16*(7), 42-56.

Srivastava, S. P. (2022), "Retail Investor Decision Making in SME IPOs in Indian Capital Market: A Qualitative Analysis", *Pacific Business Review (International),* 14(7), 37-44.

Navyatha, K., & Reddy, G. N. (2022), "Factors Influencing the IPOs' Pricing in India", *International Journal of Advance Research and Innovative Ideas in Education (IJARIIE)*, *8*(2), 89-98.

Babu, T. R. C., & Dsouza, A. E. C. (2021), "Post Listing IPO Returns and Performance in India: An Empirical Investigation", *Journal of Financial Studies & Research*, 2021.

Singh, A. K., & Anand, A. (2020), "A study on listing day price performance of BSE SME IPOs and its determinants", *Indian Journal of Finance*, 14(5-7), 44-61.

Arora, N., & Singh, B. (2020), "The long-run performance of SME IPOs in India:empirical evidence from Indian stock market", *Journal of Asia Business Studies*, *15*(1), 88-109.

Arora, N. and Singh, B. (2020), "Determinants of oversubscription of SME IPOs in India: evidence from quantile regression", *Asia-Pacific Journal of Business Administration*, Vol. 12 No. 3/4, pp. 349-370. https://doi.org/10.1108/APJBA-05-2020-0160

Rahman, M. P., Kuhan, K., & Kavida, V. (2017), "Impact of selected macroeconomic indicators on S&P BSE SME IPO index", *Indian Journal of Commerce and Management Studies*, *8*(1), 28.

Asif, M., Arif, K., & Akbar, W. (2016), “Impact of Accounting Information on Share Price: Empirical Evidence from Pakistan Stock Exchange”, *International Finance and Banking*, *3*(1), 124.

Banerjee, S., Guha, B., & Bandyopadhyay, G. (2016), “A Post Factor Analysis of Financial Ratios of Selected IPOs and its Impact on Grading: An Empirical Inquest”, *Journal of Business Studies Quarterly*, *8*(1), 23.

Maina, P. N. (2015), “The effect of initial public offers on the financial performance of firms listed at the Nairobi securities exchange”. *University of Nairobi.*

Geetha, E., & Swaaminathan, M. (2015), “A study on the factors influencing stock price A Comparative study of Automobile and Information Technology Industries stocks in India”, *International Journal of Current Research and Academic Review*, *3*(3), 97-109.

Banerjee, S., & Rangamani, K. (2015), "Determinants of investor's subscription level of IPOs: Evidence from Indian capital market in post mandatory IPO grading regime", *DLSU Business and Economic Review,* 77-91.

Meena Bhatia, & Bhawna Agarwal. (2015), “Intellectual capital disclosures in IPO prospectuses of India”, *International Journal of Social Sciences and Management,* 40-51.

Neupane, S., Paudyal, K., & Thapa, C. (2014), “Firm quality or market sentiment: What matters more for IPO investors?”, *Journal of banking & Finance*, *44*, 207-218.

Shehzad, K., & Ismail, A. (2014), “Value relevance of accounting information and its impact on stock prices: Case study of listed banks at Karachi Stock Exchange”, *Journal of Economic Info*, *3*(1).

Karanja, M. G. (2014), “The Effect of Capital Structure on Financial Performance of Small and Medium Enterprise in Dairy sector in Kiambu County”, *University of Nairobi.*

Menike, M. G. P. D., & Prabath, U. S. (2014), “The impact of accounting variables on stock price: Evidence from the Colombo stock exchange, Sri Lanka”, *International Journal of Business and Management*, *9*(5), 125.

Hai Long. (2014), “Exploring the principal factors influencing IPOs in the emerging growth enterprise market of China”, *International Journal of Trade, Economics and Finance,* 77-81.

Alanazi, A. S., & Liu, B. (2013), "*IPO financial and operating performance: Evidence from the six countries of the GCC* (No. finance: 201304)", *Griffith University*, Department of Accounting, Finance and Economics.

Wang, J., Fu, G., & Luo, C. (2013), "Accounting information and stock price reaction of listed companies—empirical evidence from 60 listed companies in Shanghai Stock Exchange", *Journal of Business & Management*, *2*(2), 11-21.

Emamgholipour, M., Pouraghajan, A., Tabari, N. A. Y., Haghparast, M., & Shirsavar, A. A. A. (2013), "The effect of performance evaluation market ratios on the stock return: evidence from the Tehran stock exchange", *International Research Journal of Applied and Basic Sciences*, *4*(3), 696-703.

Horace Ho, Kin Chau, & Pauline Cheung. (2012), "Intellectual Capital disclosure and initial public offerings: Evidence from Hong Kong", *Journal of Applied Economics and Business Research,* 56-68.

Glezakos, M., Mylonakis, J., & Kafouros, C. (2012), "The impact of accounting information on stock prices: Evidence from the Athens Stock Exchange", *International Journal of Economics and Finance*, *4*(2), 56.

Taani, K., & Banykhaled, M. H. H. (2011), "The effect of financial ratios, firm size and cash flows from operating activities on earnings per share:(an applied study: on Jordanian industrial sector)", *International journal of social sciences and humanity studies*, *3*(1), 1309-8063.

Al-Tamini, H. A., Alwan, A. A., & Rahman, A. A. (2011), "Factors affecting stock prices in the UAE financial markets", *Journal of Transnational Management* , 1-18.

Latham, S., & Braun, M. R. (2010), "To IPO or not to IPO: Risks, uncertainty and the decision to go public", *British Journal of Management,* 666-683.

Chang, X., Lin, S. H., Tam, H. K., & Wong, G. (2010), "Cross-sectional determinants of post-IPO stock performance: evidence from China", *Accounting and Finance,* 581-603.

Seung Doo Choi, Inmoo Lee, & William Megginson. (2010), "Do Privatization IPOs outperform in the long run?", *Financial Management* , 153-185.

Thomas J Boulton, Scott B Smart, & Chad J Zutter. (2010), "IPO underpricing and international corporate governance", *Journal of International Business Studies,* 206-222.

Travis L. Jones, & Mushfiq us Swaleheen. (2010), "Endogenous examination of underwriter reputation and IPO returns", *Managerial Finance,* 284-293.

Muhammad Khalid Sohail, & Abdul Raheman. (2010), "Examining the short-run IPOs performance in state of economy: Normal, Boom & Recession", *International Research Journal of Finance and Economics,* 173-186.

Yan Gao. (2010), "What comprises IPO initial returns: Evidence from the Chinese market", *Pacific-Basin Finance Journal,* 77-89

Nurwati A. Ahmad-Zaluki. (2008), "Post-IPO operating performance and earnings management", *International Business Research,* 39-48.

Arun Kumar Gopalaswamy, Kartikeya Chaturvedi, & N. Sriram. (2008), "Long run post issue performance of fixed price and book built IPOs: An empirical study on Indian markets", *Journal of Advances in Management Research,* 64-76.

Muhammad Khalid Sohail, & Mohamed Nasr. (2007), "Performance of initial public offerings in Pakistan", *International Review of Business Research Papers,* 420-441.

J L.W. Mitchell van der Zahn, Inderpal Singh, & Joshua Heniro. (2007), "Is there an association between intellectual capital disclosure, under pricing and long-run performance?", *Journal of Human Resource Costing & Accounting* , 178-213.

Michela Cordazzo. (2007), "Intangibles and Italian IPO prospectuses: a disclosure analysis", *Journal of Intellectual Capital,* 288-305.

James C. Brau, Mingsheng Li, & Jing Shi. (2007), "Do secondary shares in the IPO process have a negative effect on aftermarket performance?", *Journal of Banking & Finance* , 2612-2631.

Charles Shi, Kuntara Pukthuanthong, & Thomas Walker. (2007), "Does disclosure regulation work? Evidence from international IPO markets", (pg. 1-57). Irvine: Accounting Association FARS Midyear Conference.

Vijaya B Marisetty, & Marti G Subrahmanyam. (2006), “Group affiliation and the performance of initial public offerings in the Indian stock market”, (pg. 1-63). Colorado: WFA meetings.

Ström, N. (2006), "Essays on Information Disclosure Content, Consequence and Relevance", Uppsala: *Företagsekonomiska institutionen Department of Business Studies Uppsala University*.

Tvaronavičiene, M., & Michailova, J. (2006), "Factors affecting securities prices: Theoretical versus practical approach", *Journal of Business Economics and Management*, 213-222.

Seung-Doo Choi, & Sang-Koo Nam. (2006), “The long run stock performance of Privatization IPOs”, *Multinational Finance Journal* , 223-250.

Per Nikolaj Bukh, Christian Nielsen, Peter Gormsen, & Jan Mouritsen. (2005), “Disclosure of information on intellectual capital in Danish IPO prospectuses.”, *Accounting, Auditing & Accountability Journal* , 713-732.

Vichakorn Chiraphadhanakul, & Kennedy D Gunawardana. (2005), “The factors affecting on IPO return in Thai Stock Market”, *Proceedings of the International Conference on Computer and Industrial Management* (pg. 19.1-19.6). Bangkok,: ICIM.

Peter Jaskiewicz, Víctor M. González, Susana Menéndez, & Dirk Schiereck. (2005), “Long run IPO performance analysis of German and Spanish family-owned businesses”, *Family Business Review* , 179-202.

Maher Kooli, & Jean-Marc Suret. (2004), “The aftermarket performance of initial public offerings in Canada”, *Journal of Multinational Financial Management* , 47-66.

Durukan, M. B. (2002), "The relationship between IPO returns and factors influencing IPO performance: Case of Istanbul stock exchange", *Managerial Finance* , 18-38.

Albert Corhay, Stanley Teo, & Alireza Tourani Rad. (2002), “The long run performance of Malaysian initial public offerings (IPOs): Value and growth effects”, *Managerial Finance* , 52-65.

Breton, G., & Taffler, R. J. (2001), "Accounting information and analyst stock recommendation decisions: a content analysis approach", *Accounting and Business Research* , 91-101.

Jain, B. A., & Kini, O. (1994), "The post-issue operating performance of IPO firms", *The journal of finance*, *49*(5), 1699-1726.

Website Links

• https://www.pib.gov.in

• website: www.msme.gov.in

• https://www.investopedia.com

• https://www.chittorgarh.com

• https://www1.nseindia.com/emerge

• https://www.bsesme.com

• https://www.capitaline.com

• https://dipam.gov.in/sebi-icdr-regulations-2009

• https://www.sebi.gov.in

• https://www.rbi.org.in

Appendix 1: Output of stepwise backward regression between SME IPOs subscriptions and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Drurbin Watson	Breush Pagan (Homoscedasticy of Residuals) P value	Normality of Residuals Kolmogorov-Smirnov and Shapiro-Wilk (P value)	Independent Variables	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value	Tolerance	VIF
Subscription by Market Makers	0.065	3.437	0.000	2.045	0.284	0.000	(Constant)		1.031		48.249	0		
							Company Type	Non Financial	-0.013	-0.072	-1.368	0.172	0.964	1.037
							Issue Size (Value)	Non Financial	-0.001	-0.117	-1.437	0.152	0.403	2.48
							Lot Size (Shares)	Non Financial	-0.000003468	-0.102	-1.454	0.147	0.543	1.842
							Market Maker Reserve	Non Financial	0.00	0.40	3.363	0.001	0.186	5.37
							Net Issue of Shares	Non Financial	-1.8960E-08	-0.313	-2.403	0.017	0.157	6.377
							Firm Size	Non Financial	0.00	0.08	1.272	0.204	0.767	1.303
							IB Success Rate	Non Financial	0	-0.073	-1.398	0.163	0.98	1.021
							Listing Delay	Non Financial	0	-0.098	-1.681	0.094	0.791	1.264
							PBITM (%)	Key Financial	0.002	0.635	4.148	0	0.114	8.803
							APATM (%)	Key Financial	-0.002	-0.576	-3.74	0	0.112	8.894
Subscription by Retail Investors	0.085	3.705	0.000	1.900	0.827	0.000	(Constant)		-5.816		-1.456	0.146		
							Stock Exchange	Non Financial	6.764	0.165	3.019	0.003	0.872	1.146
							Lot Size (Shares)	Non Financial	0.001	0.094	1.609	0.109	0.767	1.304
							Net Issue of Shares	Non Financial	-9.52E-07	-0.069	-1.3	0.194	0.916	1.091
							Stand Alone	Non Financial	2.743	0.061	1.151	0.251	0.925	1.081
							Prior Market Returns	Non Financial	0.449	0.193	3.546	0	0.881	1.135
							Prior Initial Returns	Non Financial	0.196	0.078	1.435	0.152	0.888	1.126
							IB Total Listings	Non Financial	0.088	0.104	1.971	0.05	0.936	1.068
							Listing Delay	Non Financial	-0.032	-0.07	-1.305	0.193	0.907	1.102
							Firm Age	Non Financial	0.239	0.103	1.957	0.051	0.948	1.055
							Debt-Equity Ratio	Key Financial	0.494	0.072	1.128	0.26	0.643	1.555
							CPM (%)	Key Financial	-0.085	-0.092	-1.439	0.151	0.634	1.578
							Return on Capital Employed	Key Financial	0.093	0.109	1.87	0.062	0.761	1.315
Subscription by Non Retail Investors	0.065	4.058	0	1.933	0.926	0	(Constant)		-3.068		-0.733	0.464		
							Stock Exchange	Non Financial	8.342	0.099	1.88	0.061	0.959	1.043
							Stand Alone	Non Financial	6.245	0.068	1.257	0.21	0.919	1.089
							Prior Market Returns	Non Financial	1.08	0.226	4.325	0	0.976	1.025
							IB Positive Listings	Non Financial	0.13	0.069	1.326	0.186	0.977	1.023
							Debt-Equity Ratio	Key Financial	2.6	0.184	1.467	0.143	0.169	5.915
							Long Term Debt-Equity Ratio	Key Financial	-3.174	-0.123	-1.175	0.241	0.243	4.123
							Return on Capital Employed	Key Financial	0.292	0.167	2.182	0.03	0.456	2.191
							Return on Net Worth	Key Financial	-0.138	-0.14	-1.548	0.123	0.326	3.067
Overall Subscription	0.08	5.36	0	1.903	0.661	0	(Constant)		-2.752		-0.797	0.426		
							Stock Exchange	Non Financial	6.242	0.112	2.138	0.033	0.954	1.048
							Offer Price	Non Financial	-0.029	-0.072	-1.372	0.171	0.942	1.061
							Prior Market Returns	Non Financial	0.639	0.202	3.729	0	0.892	1.121
							Prior Initial Returns	Non Financial	0.252	0.074	1.359	0.175	0.891	1.123
							IB Positive Listings	Non Financial	0.115	0.093	1.79	0.074	0.976	1.024
							Firm Age	Non Financial	0.201	0.063	1.223	0.222	0.973	1.028
							Return on Capital Employed	Key Financial	0.139	0.12	2.231	0.026	0.909	1.1

Appendix 2: Output of stepwise backward regression between SME IPOs issue price and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Drurbin Watson	Breush Pagan (Homoscedasticy of Residuals) P value	Normality of Residuals Kolmogorov-Smirnov and Shapiro-Wilk (P value)	Independent Variables	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value	Tolerance	VIF
Issue Price	0.695	55.021	0.000	1.795	0.000	0.000	(Constant)		28.987		2.351	0.019		
							Issue Size (Value)	Non Financial	5.364	0.894	19.475	0	0.409	2.447
							Lot Size (Shares)	Non Financial	0.002	0.057	1.419	0.157	0.537	1.862
							Net Issue of Shares	Non Financial	-0.0000323	-0.685	-6.311	0	0.073	13.674
							Shares Allotted to Market Makers	Non Financial	0.00	0.18	2.104	0.036	0.114	8.744
							Shares Allotted to Retail Investors	Non Financial	0.000006189	0.081	1.581	0.115	0.33	3.028
							Shares Allotted to Non Retail Investors	Non Financial	-0.00001579	-0.238	-3.04	0.003	0.14	7.133
							Market Makers %age Allocation	Non Financial	-5.42	-0.146	-2.822	0.005	0.32	3.125
							Non Retail Investors %age Allocation	Non Financial	0.766	0.265	4.154	0	0.211	4.741
							Prior Initial Returns	Non Financial	0.381	0.044	1.462	0.145	0.943	1.06
							IB Positive Listings	Non Financial	-0.192	-0.061	-1.809	0.071	0.758	1.319
							IB Success Rate	Non Financial	0.245	0.075	2.308	0.022	0.817	1.224
							Long Term Debt-Equity Ratio	Key Financial	-2.397	-0.056	-1.703	0.09	0.805	1.242
							Inventory Turnover	Key Financial	-0.021	-0.04	-1.344	0.18	0.977	1.024
							Interest Cover Ratio	Key Financial	0.147	0.064	2.093	0.037	0.909	1.1
							PBDTM (%)	Key Financial	0.36	0.126	3.778	0	0.777	1.287

Appendix 3: Output of stepwise backward regression between SME IPOs listing day prices performance and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Drurbin Watson	Breush Pagan (Homoscedasticy of Residuals) P value	Normality of Residuals Kolmogorov-Smirnov and Shapiro-Wilk (P value)	Independent Variables	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value	Tolerance	VIF
Listing Day Opening Price	0.988	1453.965	0.000	1.960	1.000	0.000	(Constant)		-3.064		-0.891	0.374		
							Retail Subscription	Non Financial	-0.045	-0.013	-1.003	0.317	0.204	4.892
							Overall Subscription	Non Financial	0.073	0.028	2.221	0.027	0.207	4.835
							Stock Exchange	Non Financial	-0.847	-0.006	-0.919	0.359	0.809	1.236
							Issue Type	Non Financial	-2.431	-0.011	-1.664	0.097	0.758	1.319
							Company Type	Non Financial	-1.607	-0.011	-1.865	0.063	0.919	1.089
							Issue Size (Value)	Non Financial	-0.106	-0.018	-1.411	0.159	0.22	4.547
							Lot Size (Shares)	Non Financial	0	-0.009	-1.113	0.266	0.468	2.135
							Market Maker Reserve	Non Financial	1.46E-05	0.018	1.654	0.099	0.279	3.579
							Shares Allotted to Retail Investors	Non Financial	-9.78E-07	-0.013	-1.486	0.138	0.471	2.123
							Shares Allotted to Non Retail Investors	Non Financial	-7.01E-07	-0.01	-1.116	0.265	0.387	2.586
							Market Makers %age Allocation	Non Financial	0.575	0.015	2.198	0.029	0.694	1.441
							Offer Price	Non Financial	1.007	0.997	102.34	0	0.358	2.793
							Board Size	Non Financial	0.567	0.011	1.777	0.077	0.873	1.146
							Stand Alone	Non Financial	-1.981	-0.013	-1.863	0.063	0.729	1.371
							No of Group entites	Non Financial	-0.119	-0.008	-1.156	0.248	0.734	1.362
							Prior Market Returns	Non Financial	0.088	0.011	1.697	0.091	0.822	1.216
							Prior Market Volatility	Non Financial	1.127	0.006	0.984	0.326	0.891	1.122
							IB Total Listings	Non Financial	-0.004	-0.001	-0.201	0.841	0.71	1.408
							IB Success Rate	Non Financial	0.052	0.016	2.429	0.016	0.803	1.246
							Return on Capital Employed	Key Financial	0.021	0.007	1.052	0.293	0.767	1.305
Listing Day Closing Price	0.986	866.002	0.000	1.978	1.000	0.000	(Constant)		3.838		0.562	0.574		
							Market Maker Subscription	Non Financial	-6.505	-0.008	-1.221	0.223	0.896	1.116
							Retail Subscription	Non Financial	-0.072	-0.021	-1.448	0.149	0.199	5.032
							Overall Subscription	Non Financial	0.112	0.044	3.081	0.002	0.204	4.901
							Stock Exchange	Non Financial	-1.749	-0.012	-1.704	0.089	0.789	1.267
							Issue Type	Non Financial	-1.997	-0.009	-1.276	0.203	0.801	1.249
							Company Type	Non Financial	-2.084	-0.015	-2.141	0.033	0.873	1.145
							Issue Size (Value)	Non Financial	-0.185	-0.03	-2	0.046	0.178	5.628
							Lot Size (Shares)	Non Financial	0	-0.006	-0.665	0.507	0.438	2.281
							Net Issue of Shares	Non Financial	1.83E-06	0.038	2.179	0.03	0.133	7.543
							Shares Allotted to Retail Investors	Non Financial	-1.43E-06	-0.018	-1.666	0.097	0.337	2.966
							Shares Allotted to Non Retail Investors	Non Financial	-8.48E-07	-0.013	-0.729	0.466	0.137	7.32
							Market Makers %age Allocation	Non Financial	0.602	0.016	1.674	0.095	0.445	2.248
							Non Retail Investors %age Allocation	Non Financial	0.029	0.01	0.713	0.477	0.211	4.739
							Offer Price	Non Financial	1.024	1.008	85.759	0	0.295	3.392
							Firm Size	Non Financial	0	-0.011	-1.438	0.151	0.727	1.376
							Independent Directors	Non Financial	1.315	0.013	1.58	0.115	0.567	1.765
							Stand Alone	Non Financial	-1.557	-0.01	-1.324	0.186	0.722	1.384
							No of Group entites	Non Financial	-0.117	-0.008	-1.025	0.306	0.724	1.382
							Prior Market Volatility	Non Financial	0.931	0.005	0.74	0.46	0.896	1.117
							IB Success Rate	Non Financial	0.07	0.021	3.142	0.002	0.904	1.106

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Drurbin Watson	Breush Pagan (Homoscedasticy of Residuals) P value	Normality of Residuals Kolmogorov-Smirnov and Shapiro-Wilk (P value)	Independent Variables	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value	Tolerance	VIF
							Firm Age	Non Financial	-0.045	-0.006	-0.836	0.404	0.927	1.078
							Board Independence	Non Financial	-0.09	-0.013	-1.484	0.139	0.561	1.781
							Current Ratio	Key Financial	-0.029	-0.007	-1.027	0.305	0.864	1.157
							Fixed Assets Turnover	Key Financial	0.001	0.007	1.108	0.269	0.894	1.118
							Debtors Turnover	Key Financial	-0.003	-0.005	-0.739	0.46	0.94	1.064
							PBITM (%)	Key Financial	-0.045	-0.019	-1.066	0.287	0.126	7.924
							PBDTM (%)	Key Financial	0.054	0.018	1.021	0.308	0.125	8.017
							Return on Capital Employed	Key Financial	0.022	0.007	1.002	0.317	0.745	1.342

Appendix 4: Output of stepwise backward regression between SME IPOs post listing prices performance and key financials as well as non-financial disclosures

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Drurbin Watson	Breush Pagan (Homoscedasticy of Residuals) P value	Normality of Residuals Kolmogorov-Smirnov and Shapiro-Wilk (P value)	Independent Variables	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value	Tolerance	VIF
1M IPO Price	0.93	232.47	0.000	1.884	0.000	0.000	(Constant)		15.204		1.665	0.097		
							Retail Subscription	Non Financial	0.107	0.029	1.955	0.051	0.89	1.123
							Stock Exchange	Non Financial	-3.593	-0.024	-1.634	0.103	0.921	1.086
							Issue Type	Non Financial	-6.939	-0.03	-1.941	0.053	0.822	1.217
							Shares Allotted to Non Retail Investors	Non Financial	-0.000002618	-0.037	-1.732	0.084	0.433	2.31
							Non Retail Investors %age Allocation	Non Financial	0.188	0.061	2.807	0.005	0.419	2.386
							Listing Day Closing Price	Non Financial	0.98	0.94	58.011	0	0.768	1.301
							Private Group	Non Financial	-20.361	-0.128	-3.041	0.003	0.113	8.82
							Stand Alone	Non Financial	-2.14E+01	-0.131	-3.05	0.002	0.109	9.214
							No of Group entites	Non Financial	2.39E-01	0.015	0.92	0.358	0.752	1.329
							Prior Market Returns	Non Financial	-2.63E-01	-0.031	-1.936	0.054	0.779	1.283
							Prior Initial Returns	Non Financial	0.126	0.014	0.899	0.369	0.86	1.163
							IB Total Listings	Non Financial	0.047	0.015	0.914	0.361	0.736	1.359
							IB Success Rate	Non Financial	0.073	0.021	1.344	0.18	0.825	1.212
							Listing Delay	Non Financial	-0.057	-0.034	-2.323	0.021	0.96	1.041
							Firm Age	Non Financial	0.207	0.024	1.656	0.099	0.919	1.088
							Debt-Equity Ratio	Key Financial	-0.48	-0.019	-1.081	0.28	0.635	1.575
							Fixed Assets Turnover	Key Financial	0.003	0.028	1.907	0.057	0.947	1.056
							Debtors Turnover	Key Financial	-0.02	-0.036	-2.446	0.015	0.951	1.051
							Interest Cover Ratio	Key Financial	0.042	0.017	1.158	0.248	0.884	1.132
							Return on Net Worth	Key Financial	0.041	0.023	1.26	0.209	0.587	1.704
3M IPO Price	0.82	114.872	0.000	1.659	0.000	0.000	(Constant)		44.464		3.176	0.002		
							Overall Subscription	Non Financial	-0.146	-0.044	-1.848	0.065	0.906	1.104
							Stock Exchange	Non Financial	-6.568	-0.035	-1.505	0.133	0.925	1.081
							Offer Price	Non Financial	-1.166	-0.886	-4.721	0	0.015	68.53
							Listing Day Closing Price	Non Financial	2.144	1.657	8.831	0	0.015	68.46
							Private Group	Non Financial	-59.859	-0.303	-4.512	0	0.114	8.76
							Stand Alone	Non Financial	-67.965	-0.335	-4.983	0	0.114	8.8
							IB Total Listings	Non Financial	0.166	0.043	1.867	0.063	0.961	1.041
							Listing Delay	Non Financial	-0.1	-0.048	-2.039	0.042	0.944	1.059
							Firm Age	Non Financial	0.606	0.058	2.47	0.014	0.942	1.061
							Debt-Equity Ratio	Key Financial	1.167	0.038	0.83	0.407	0.251	3.992
							Long Term Debt-Equity Ratio	Key Financial	-2.926	-0.052	-1.158	0.248	0.258	3.876
							Fixed Assets Turnover	Key Financial	0.043	0.298	12.958	0	0.969	1.032
							Debtors Turnover	Key Financial	-0.02	-0.028	-1.236	0.217	0.973	1.028
							Return on Capital Employed	Key Financial	0.522	0.136	5.401	0	0.814	1.228
6M IPO Price	0.416	17.636	0.000	2.008	0.000	0.000	(Constant)		341.803		4.882	0		
							Overall Subscription	Non Financial	-0.478	-0.068	-1.589	0.113	0.908	1.102
							Stock Exchange	Non Financial	-30.323	-0.077	-1.814	0.071	0.914	1.094
							Issue Type	Non Financial	-57.027	-0.095	-2.097	0.037	0.815	1.227
							Shares Allotted to Non Retail Investors	Non Financial	-1.53E-05	-0.083	-1.349	0.178	0.441	2.265
							Non Retail Investors %age Allocation	Non Financial	0.581	0.072	1.176	0.24	0.44	2.271
							Offer Price	Non Financial	-5.231	-1.879	-5.482	0	0.014	70.54
							Listing Day Closing Price	Non Financial	6.042	2.206	6.412	0	0.014	71.06
							Private Group	Non Financial	-313.256	-0.749	-6.191	0	0.114	8.783

Dependent Variable	Adj. R Square	ANOVA F	ANOVA Sig.	Drurbin Watson	Breush Pagan (Homoscedasticy of Residuals) P value	Normality of Residuals Kolmogorov-Smirnov and Shapiro-Wilk (P value)	Independent Variables	Type of Disclosure	Unstandardized Beta Coefficients	Standardized Beta Coefficients	t value	Sig. Value	Tolerance	VIF
							Stand Alone	Non Financial	-338.584	-0.789	-6.467	0	0.112	8.936
							Prior Market Volatility	Non Financial	22.298	0.044	1.045	0.297	0.956	1.046
							IB Total Listings	Non Financial	0.448	0.055	1.189	0.235	0.774	1.292
							IB Success Rate	Non Financial	-0.402	-0.044	-0.988	0.324	0.831	1.203
							Fixed Assets Turnover	Key Financial	0.059	0.192	4.599	0	0.957	1.045
							Interest Cover Ratio	Key Financial	0.503	0.079	1.848	0.065	0.903	1.107
							Return on Capital Employed	Key Financial	1.725	0.212	4.643	0	0.798	1.252
9M IPO Price	0.263	11.413	0.000	2.057	0.000	0.000	(Constant)		1085.53		5.405	0		
							Overall Subscription	Non Financial	-1.348	-0.067	-1.383	0.167	0.908	1.101
							Stock Exchange	Non Financial	-98.34	-0.087	-1.819	0.07	0.915	1.092
							Issue Type	Non Financial	-219.416	-0.127	-2.511	0.013	0.827	1.21
							Offer Price	Non Financial	-16.049	-2	-5.238	0	0.014	69.4
							Listing Day Closing Price	Non Financial	16.553	2.097	5.489	0	0.014	69.45
							Private Group	Non Financial	-1056.27	-0.876	-6.459	0	0.114	8.755
							Stand Alone	Non Financial	-1118.208	-0.904	-6.652	0	0.114	8.794
							Prior Market Volatility	Non Financial	73.376	0.05	1.071	0.285	0.972	1.029
							IB Positive Listings	Non Financial	-20.878	-0.828	-2.116	0.035	0.014	72.81
							IB Total Listings	Non Financial	19.877	0.85	2.195	0.029	0.014	71.33
							Interest Cover Ratio	Key Financial	1.624	0.089	1.844	0.066	0.904	1.106
							Return on Capital Employed	Key Financial	5.046	0.215	4.268	0	0.826	1.211
12M IPO Price	0.268	10.866	0.000	2.046	0.000	0.000	(Constant)		936.509		5.184	0		
							Overall Subscription	Non Financial	-1.129	-0.07	-1.45	0.148	0.908	1.101
							Stock Exchange	Non Financial	-76.718	-0.085	-1.771	0.077	0.91	1.098
							Issue Type	Non Financial	-172.122	-0.124	-2.465	0.014	0.826	1.211
							Offer Price	Non Financial	-12.792	-1.989	-5.224	0	0.014	69.48
							Listing Day Closing Price	Non Financial	13.449	2.125	5.577	0	0.014	69.61
							Independent Directors	Non Financial	-28.431	-0.046	-0.978	0.329	0.953	1.049
							Private Group	Non Financial	-840.839	-0.87	-6.434	0	0.114	8.764
							Stand Alone	Non Financial	-885.209	-0.893	-6.591	0	0.114	8.797
							Prior Market Volatility	Non Financial	55.795	0.047	1.016	0.31	0.965	1.036
							IB Positive Listings	Non Financial	-16.285	-0.805	-2.063	0.04	0.014	73.04
							IB Total Listings	Non Financial	15.486	0.826	2.137	0.033	0.014	71.63
							Interest Cover Ratio	Key Financial	1.332	0.091	1.886	0.06	0.897	1.115
							Return on Capital Employed	Key Financial	3.845	0.205	4.064	0	0.823	1.215