Ph.D. Thesis

on

Financing Preferences and Determinants of Capital Structure-A Study of Small and Medium Enterprises

Submitted in fulfillment of the requirement for the degree of

DOCTOR OF PHILOSOPHY

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June 2017

CERTIFICATE

This is to certify that thesis entitled **"Financing Preferences and Determinants of Capital Structure- A Study of Small and Medium Enterprises"** is being submitted by **Ms. Purnima Rao (ID No: 2012RBM9536)** to the Malaviya National Institute of Technology, Jaipur for the award of the degree of **Doctor of Philosophy.** This is a bonafide record of original research work accomplished by her. She has worked under our guidance and supervision and has fulfilled the requirement for the submission of this thesis, which has reached to the requisite standard.

The results contained in this thesis have not submitted to any other University or Institute for the award of any degree or diploma.

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CANDIDATE DECLARATION

I, **Purnima Rao (2012RBM9536)** declare that the work presented in the thesis entitled "**Financing Preferences and Determinants of Capital Structure- A Study of Small and Medium Enterprises"** is my own work carried out during 2013-2017. I further declare that:

1. The work has been done while in candidature for Ph.D. degree at MNIT.
2. Where I have consulted the published work of other, the same has been clearly attributed.
3. Where I have quoted from the work of others, the source has been given, with the exception of such quotations; this thesis is entirely my own work.
4. I have acknowledged all main sources of help.

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ACKNOWLEDGEMENT

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ABSTRACT

Small and medium enterprises (SMEs) are the prime movers of progression for an emerging economy like India. The present study aims to shed light as comprehensively as possible on the financing preferences of SMEs in India. SMEs play an important role in maintaining the economic health of developed and developing countries. In emerging economies, such as in India, SMEs work on the static and dynamic fronts. On the static front, SMEs contribute to a country's output and generate employment, whereas on the dynamic front, these firms serve as a nursery for large firms, provide the next level for growing micro-firms and also contribute to the national income of a country. SMEs act as a catalyst for the advancement of newly industrialised countries. The potential of SMEs to provide a transformational change, especially in developing countries, has attracted the interest of researchers and academicians.

Despite the potential role of SMEs in accelerating the growth and development in emerging economies, many bottlenecks affect the ability of SMEs to realise their full potential. The most important among them is the lack of financial resources (Abor and Quartey, 2010). Information asymmetry, credit scoring and availability of audited financial statements are major issues in financing SMEs that operate in India (Thampy, 2010).According to Ayyagari *et al.* (2008), various growth constraints are linked with *"access to finance",* one of the pressing problems faced by SMEs. The challenge here is to fill the gap that arises due to information asymmetry so that growing firms will not remain financially constrained. Dogra and Gupta (2009) highlighted that SMEs operating in India are facing the problem of non-availability of finance due to the attitude of owners towards external funds. Their study attributed the orthodox attitude of Indian SME owners of sticking to their own funds rather than tapping external resources. Given the importance of SMEs in India and the existence of constraints related to accessing finance faced by Indian SMEs, it is imperative to analyse financing preferences and determinants of the capital structure of SMEs to understand their financing behaviour.

The present study is developed on the lines of contextual, theoretical and empirical literature available on SMEs. The contextual background is explained with the discussion of the economic significance of SMEs in India and thereby highlights the contribution of SMEs in the Indian economy. It further throws light on the available

sources of finance. The various financial resources include all the variants of debt and equity. The presents study is developed on the financing constraints faced by SMEs in India. Therefore, the overview of different sources of finance available for SMEs helps in accessing the financing preferences and practices of SMEs in India. This will assist in assessing the contextual backdrop for the financial sources available in India. The theoretical background has been studied with an explanation of various financial theories developed on the financing decisions of SMEs. However, the capital structure theories have made a tremendous effort to explain the different aspects related to financing decisions of the firm. It is observed that financing decisions of SMEs are explained on the basis of components of a single theory. Moreover, the theories were developed and studied mainly on large firms in the context of developed economies. Therefore, the applicability of these theoretical underpinnings on SMEs in the context of an emerging economy will definitely provide significant insights into the financing decisions of firms.

The empirical backdrop of the studies based on capital structure was examined with the help of previous studies conducted on determinants of capital structure decisions. It includes firm-specific characteristics, owner/manager attributes and macroeconomic factors. The importance of all the factors is explained from the perspective of the financing decisions of SMEs. Mixed empirical evidence is found on the association between leverage ratio and determinants of the firm. This thereby highlights the necessity of a contextual study because results differ with the change in context and institutional settings. According to Dodd and Patra (2002), the findings obtained from different contexts cannot be applied to another context without prior empirical verification. Therefore, the theoretical and empirical evidence on the determinants of capital structure is required to be examined in the Indian context.
The overall examination of the literature has assisted the researcher in identifying the research gaps. This thereby lays the foundation of the fundamental structure of the current study.

The prime objective of this study was to explore the financing preferences of SME owners in India. The financing preferences were compared with financing practices adopted by SMEs. It thereby highlights the current capital structure of SMEs and compares the accessible and available financial resources with the availed ones. This study also investigates the influence of owner's characteristics on their level of financing preferences. It further investigates the different financial resources availed

and preferred during various stages of the business life cycle. It also examines the determinants of the capital structure of SMEs and investigates the applicability of theoretical underpinnings in the context of SME financial structure. This study also identifies the gap between preferred and availed financial resources. This leads to an improvement in the financial assistance available to Indian SMEs. This will also deepen the existing body of knowledge.

This study was mainly based on the primary survey conducted with the help of a structured questionnaire. The present research used the triangulation technique to achieve the stated objectives. The survey method is used to identify and analyse the financing preferences of SMEs. A structured questionnaire is prepared on the basis of findings from the preliminary interviews and the previous studies conducted on SME financing. The financial data was used to determine the capital structure determinants of Indian SMEs. This has been taken from the electronic database PROWESS of the Centre for Monitoring Indian Economy (CMIE) for the period 2006-2014. This study uses various statistical techniques for analyzing the data collected through a structured questionnaire and the PROWESS database. Statistical software like SPSS version 23.0 was used for the coding and analysis of primary data while E-views 8.0 was used for the analysis of panel data.

The main research findings of the study reveal that IEF (Internal Equity Financing) is preferred over all the sources of financing followed by long term sources of financing. Short term sources of financing are closely followed by alternative source of financing. EEF (External Equity Financing) is last preferred source of financing. Current financial structure of SMEs is mainly governed by personal funds of owners followed by retained earnings. However, current usage of short term external sources does not show much difference from the financing preferences. Cash Credit and bank overdraft are most commonly used by the firms followed by short term bank loans. But the percentage of firms using short term loans is less than the percentage of firms preferring short term loans. Trade credit is the most favourable choice among alternative source of finance. Preference for long term sources of finance is robust across firm as well as respondent's characteristics.
Regression analysis is done to study the relationship between financing preferences and respondent's characteristics. Gender, education, experience and ownership play an important role in determining the financing preferences of SMEs in India.

Firm Specific factors are more important for SME owners as compared to country specific factors. The factors driving the capital structure decisions exhibits varied relationships. As the nature of debt changes, the association also changes accordingly but for some factors association also remains same throughout the all models. It is clear indication of the presence of robust and fragile nature of capital structure determinants' of SMEs in India. As a result of this, application of a particular theory is not pertinent for SMEs. Moreover, results are more biased towards POT (Pecking order theory) but the presence of TOT (Trade-off theory) cannot be neglected too. Applicability of POT on SMEs is also confirmed by Allen *et al.* (2012). Industry effects are noticeably visible from the analysis. Therefore, it has been helpful in understanding the role of firm specific factors in the financing decisions and it also helps in describing the position of SMEs in terms of their leverage.

The work contributes towards the awareness of financing behavior of small firms in India. The findings of this study would enable SMEs to understand more on factors that might have a relationship and also influence on their preferences for different sources of finance available in the market. The study also highlights the potential lending market available to public and private financing institutions in the form of SMEs. Findings on preferences for different sources of financing and the capital structure of SMEs should be taken into consideration by policy-makers in developing financial assistances for the Indian SMEs. Finally the study contributes to the extant body of knowledge by providing first hand evidence on financing preferences and practices of SMEs in India.

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LIST OF ABBREVIATIONS

ACT	Agency Cost Theory
ANOVA	Analysis of Variance
CMIE	Centre for Monitoring Indian Economy
CRISIL	Credit Rating Information Services of India Limited
DTOT	Dynamic Trade-off Theory
EEF	External Equity Financing
GDP	Gross Domestic Product
GMM	Generalized Methods of Moments
GR	Growth
ICRA	Information Credit Rating Agency of India Limited
IEF	Internal Equity Financing
Lev	Leverage
LIQ	Liquidity
LTD	Long Term Debt
LTF	Long Term Financing
MM	Modigliani and Miller Theory
MSME	Micro, Small and Medium Enterprises
MSMED	Micro Small and Medium Enterprises Development
MSME-DI	Micro Small and Medium Enterprises Development Institute
NABARD	National Bank for Agriculture and Rural Development
NBFIs	Non Banking Financial Institutions
NDTS	Non-Debt Tax Shield
NSIC	National Small Industries Cooperation
OCF	Operating Cash Flow
OFF	Other Forms of Financing
OLS	Ordinary Least Square
POT	Pecking Order Theory
PRAC	Practices
PREF	Preferences
PROF	Profitability
SIDBI	Small Industries Development Bank of India
SMERA	SME Rating Agency of India
SMEs	Small and Medium Enterprises
STD	Short Term Debt
STF	Short Term Financing
STOT	Static Trade-off Theory
TANG	Tangibility
TD	Total Debt
TOT	Trade-off Theory
VC	Venture Capital
VIF	Variance Inflation Factor

CHAPTER-1
INTRODUCTION AND PROBLEM STATEMENT

CHAPTER 1

INTRODUCTION AND PROBLEM STATEMENT

Preface

Small and medium enterprises (hereafter SMEs) are the prime movers of progression for an emerging economy like India. The present study aims to shed light as comprehensively as possible on the financing preferences of SMEs in India. This chapter is structured as follows: Section 1 gives the introduction of the study. Section 2 presents the background statistics of SMEs. Section 3 describes the problem statement and research justification. Section 4 presents the research objectives formulated for the study. Sections 5-8 outline the research design, methodology, contributions of the study and organization of this thesis.

1.1 INTRODUCTION

SMEs are indispensable for the holistic growth and development of economies worldwide (Danis *et al.*, 2006; Salvato *et al.*, 2007). They play a significant role in the commercial activity of any country. The multi-faceted activities performed by SMEs directly or indirectly contribute in the economic growth of a country. Moreover, SMEs serve as nurseries for upcoming large enterprises and also supply ancillary materials to large firms. SMEs being labour-intensive enterprises definitely provide a substratum for generating employment in an economy. A vibrant SME sector promotes competition and a culture of entrepreneurship. Moreover, the SME sector is also believed to create blue ocean strategies, and thereby it continuously fosters the spirit of innovation and dynamism to improve efficiency at the work place (Kumar and Rao, 2015).

  SMEs play an important role in the world economy and contribute substantially to income, output and employment. According to Ayyagari *et al.* (2011), SMEs constitute 95% of the world industrial fabric and 60% of the private sector employment. According to a report of IFC (2010), formal SMEs contribute up to 45% of the total employment and up to 33% of the gross domestic product (GDP) in emerging economies. These numbers are significantly higher when informal SMEs are included.

        SMEs are one of the key drivers responsible for India's transition from an agrarian to an industrialized economy. In India, 90% of the industrial arena is

constituted by SMEs. There are about 51.1 million units throughout the geographical stretch of the country .SMEs contribute around 7% of the manufacturing GDP and 31% of the GDP from service activities and thereby add approximately 37% to the India's total GDP. These firms provide employment to around 120 million persons and contribute around 46% of the overall exports from India. The sector has consistently maintained a growth rate of >10%. Therefore, SMEs are strategically important to India's economy. Regardless of their significant contribution to the Indian economy, the literature reveals that SMEs are struggling to obtain finance for their investment and growth (Srinivas, 2005; Sheshayee, 2006; Dogra and Gupta, 2009; Thampy, 2010; Dalberg report on SME development in developing countries, 2011; Allen *et al.,* 2012; Zaidi, 2013). This clearly indicates that lack of access to finance is the primary reason for the under-development of SMEs.

As per Zingales (2000)*, "empirically emphasis on large companies has led us to ignore the rest of the universe: the young and small firms who do not have access to public markets".*

Academicians and researchers have focused their attention on the characteristics and dynamics of SMEs three decades ago (Storey, 1982; Robinson and Pearce, 1984; Gibb and Scott, 1985; D'Amboise and Muldowney, 1988). However, Petersen and Rajan (1994) were the first to attempt studying the capital structure of small unlisted firms. Their study, besides drawing attention to the economic importance of unlisted firms, asserts that SMEs are an ideal testing ground for capital structure theories.

Given the importance of SMEs in India and existence of constraints related to access to finance among Indian SMEs, it becomes imperative to analyse financing preferences and determinants of capital structure of SMEs to understand their financing behaviour. The literature on SMEs has recognized that the significance of availability and accessibility of financial resources are imperative for the growth of SMEs in developing economies like India. These issues pose intrinsic impediments in the financing of SMEs due to lack of awareness about funding schemes of the government and limited role of venture capitalists, business angels, capital markets and nonbanking financial institutions in financing SMEs (Singh and Wasdani, 2016).Therefore, this study will boost SME growth by providing a holistic view on the existing and the preferred financing requirement of SMEs in India.

1.2 BACKGROUND OF THIS STUDY

Access to finance is essential for the growth and development of any enterprise. Adequate and timely credit helps in boosting investment and innovation. However, availability and accessibility of financial resources are always a matter of concern for SMEs. Although financial flow to SMEs is increasing, but still it remains quite restrained. Further, financing decisions of SMEs are quite different from those of large firms. The financing structure of SMEs is governed by the decisions taken by owners. Unification of owners and managers lead to an owner-firm intertwinement (Ang, 1992). Issues of information asymmetry are extremely strong due to informality and scarce information. Further, the owner's desire to have control and flexibility in financing decisions indicate towards the high preference for internal funds in the financial structure of SMEs (Hamilton and Fox, 1998; Hutchinson *et al.,* 1998). Briozzo and Vigieir (2009) also support that personal and behavioural aspects of SME owners play an important role in the financial decision-making process.

Apart from the high preference for internally generated funds, SMEs also rely on short-term funds, borrow a greater share of their funds from trade credit and other non-bank creditors and exhibit a higher tendency to finance long-term assets with short-term funding compared with big enterprises (Tamari, 1980). Therefore, it is evident that SMEs lack appropriate financing. Within the SME sector, micro and small enterprises are more financially constrained as compared to medium enterprises (Singh and Janor, 2013).

Moreover, it is important to consider the fact that access to finance becomes highly significant in the early stages of firm incorporation. Bank finance which is the most common source of external financing for SMEs is not available to these firms at the start-up phase (Bruneau *et al.*, 2012). This gives rise to the need for using alternative or informal sources of financing. Moreover, Asian economies are characterized by low levels of financial intermediation and weak capital markets. The financial system is not able to provide effective financial assistance required by SMEs (Columba *et al.,* 2008).

According to Singh and Janor (2013), financial institutions primarily focus on large firms and government bonds. Although SMEs are attracting more attention and getting assistance nowadays, the desired level is yet to be achieved. The prime reasons behind these issues are high cost of credit, information asymmetry, poor credit culture, uneconomical switching costs and lack of knowledge about the various

financial assistance programmes. Due to these impediments, financial markets for SMEs are generally small and fragmented. Nagayya and Sobha Rani (2007) documented that social, cultural, economic and political factors also append snags to the access of finance in India. But, unequivocally financing is a decisive component in the growth and development of SMEs. Therefore, it is necessary to study the factors affecting the financing decisions of SMEs.

1.3 PROBLEM STATEMENT AND RESEARCH RATIONALE

As advocated by Cook (2001), *"The role of finance has been viewed as a critical element for the development of SMEs"*.

According to the SME census conducted in 2007, almost 92% of the SMEs in India have no access to any formal sources of finance; they are either self-financed or depend on an informal source of financing. SMEs are particularly constrained by gaps in the financial system, and these include high administrative cost, high collateral requirements and lack of experience within financial intermediaries. Therefore, financing obstacles are considered as major growth limiting factors for small sized firms. Moreover, SME financing remains one of the most under-researched areas in developing countries (Dalberg Report, 2011). SME financing is one of the emerging and interesting fields for research especially in developing economies (Wu *et al.,* 2008). Ang (1991) documented the fact that the financial management of small firms is entirely different from those of large firms. One cannot visualize the financial practices of small and large firms in a single frame. This is because generally SMEs are not publically traded and have less access to the capital market. Moreover, the problem of information asymmetry is the peculiarity of SMEs, which make them riskier as compared to other firms. This thus makes it difficult for them to procure funds. Therefore, SMEs must bridge the funding gap to realize their potential growth (IBEF, 2013).

Financing decisions also depend upon business cycle dynamics (i.e. whether there is an upsurge or slump in the economy). Because financial decisions relate to market forces and these are vital for a firm's economic welfare. Financial distress, potentially leading to bankruptcy, may well be a reality where the management makes wrong or incorrect decisions with the balance of the capital structure (Eriotis, 2007). Therefore; capital structure is one of the major areas of concern for a firm. It includes how a firm decides its long-term investment decisions and identifies a suitable source of finance. Optimal capital structure helps in providing momentum to the

development of an organization. Thus, the above decisions are crucial because they significantly affect the financial performance of the firm. Financial resources of a firm can be broadly classified into equity and debt. Capital structure is an explicit fusion of debt and equity which an organization uses to backup it's operating and investment decisions. Thus, it is essential to know about the factors affecting the financial decisions of an organization.

Capital structure determinants serve as strong pillars that lend a competitive advantage to an organization. The factors determining the financial mix of an organization are dynamic in nature. They are firm specific and depend on the industry to which the firm belongs and on the micro and macroeconomic environments of the firm. Consequently, it can be said that financial mix is an important strategic decision that is becoming increasingly more crucial and challenging.

Investment and financing decisions are mutually related to each other. Investment in lucrative avenues requires money and thus necessitates change in financial structure by restructuring the proportion of alternative sources of funding. It thereby creates an impact on existing capital structure, cost of capital, risk and earnings of the firm. So, an optimal capital structure is required to maximize the value of the firm. A firm that plans to venture into a new project or to upgrade its existing technology must make arrangements to finance the project in such a way that it can minimize its cost of capital to the extent possible. By this, a firm indirectly aims to increase returns to its shareholders. Moreover, the basic goal of a firm is the maximization of the shareholder's wealth which depends upon the firm's value. Because financing decisions have an impact on the firm's value, capital structure decisions are very vital for a firm's progress. The literature behind the relevance or irrelevance of capital structure proves the importance of capital structure.

An optimal financing mix depends on various country, industry, firm and owner specific factors. The interplay of these factors determines the resources chosen for funding an SME's operations. Although it is difficult to determine which factors dominate, recent research suggests that firm-specific and owner-specific factors highly influence the financing decisions of SMEs (Psillaki and Daskalakis, 2009; Borgia and Newman, 2012). Prior studies also documented that capital structure theories do not appropriately justify the financing behaviour of SMEs in developing economies (Borgia and Newman, 2012). Managerial theories do a better job of

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explaining the capital structure of SMEs compared to conventional financing theories (Hackbarth, 2008; Ang *et al.,* 2010; Ruan *et al.,* 2011). Further, no distinction exists between ownership and control in small firms resulting in the owner making most of the decisions. Thus, SME owners play a pivotal role in determining the requisite financing. According to Ang *et al.* (2010), an owner's individual demographic features help to explain the capital structure of small firms. Therefore, the study also focuses on how firm-and owner-specific factors affect the financing preferences and practices of SMEs.

Financial needs of SMEs are of concern to both owners and policy makers because these firms help to enhance an economy's growth and development. Further, studies on SME financing in India are primarily conducted by government bodies and focused mainly on the issue of provision of funds for SMEs and SME financing is evolving globally as an area of research interest. Therefore, there is a scope for conducting research exclusively on financing preferences of SMEs. The present study is motivated by the lack of literature on financing preferences and determinants of capital structure of SMEs in India.

Further, to achieve greater financial accessibility and availability, it is important to enhance the understanding of financing preferences and practices among SMEs. This thereby strengthens the existing lending infrastructure of the Indian financial system. The study also highlights the need for an enhanced awareness of financial products and assistance programmes available to SMEs. Therefore, given the significant role of SMEs and the existence of financing gaps, this research aims to investigate the financial preferences of SMEs in India and thereby compares financing practices and preferences of SMEs in India. By highlighting the existent gap between financing preferences and practices of SME owners, it suggests policy makers and institutional lenders to provide the desired lending facilities with minimum hindrances. The present study also captures the prime determinants of the capital structure of Indian SMEs. It is believed to enhance the understanding among SME owners of the various factors affecting the capital structure decisions of SMEs. Overall, the study provides a holistic view on SME financing by integrating all the elements affecting the financing decisions of SMEs.

1.4 OBJECTIVES OF THE STUDY

The present study aims to enhance the understanding of the financial behaviour of Indian SMEs. It also highlights the need for studying the capital structure of small firms in emerging markets. The capital structure of SMEs is incomplete without the study of the characteristics of SME owners/mangers; therefore, it also incorporates managerial elements while studying the financial preferences of SMEs. In this way, the objectives of this study are designed by the integration of all the essential components influencing the financing behaviour of SMEs.

The main objective of this study was to examine the financing preferences and determinants of the capital structure of SMEs in Northwest India. More specifically, the present study intends to achieve the following objectives:

1. to identify and analyse the prevalent financing preferences of SMEs,

2. to determine the strength of association between owners'/managers' financing preferences and   the existing capital structure of SMEs,

3. to establish (if any) the relationship between SME owners'/managers' attributes and financing preferences of firms for different sources of funds,

4. to investigate the factors determining the capital structure of SMEs and measure the applicability of capital structure theories with reference to SMEs.

1.5 RESEARCH DESIGN

According to De Vaus (2001), a research design is the overall strategy that is chosen to integrate the different components of the study coherently and logically. It ensures the effectiveness in addressing the research problem. It thereby constitutes the blueprint for the collection, measurement and analysis of data. All the elements of the research designed have been extensively explained in chapter 4 of the study. The following table1.1 summarizes the research design used in this study.

Table 1.1- Summary of Research Design

This table presents the elements of research design used in the study. It list out the nature of the elements used in developing the research design of the study

S. No.	Elements	Nature of Elements
1	Purpose	Descriptive and Explanatory
2	Philosophies	Positivism
3	Approach	Deductive
4	Strategies	Survey and Archival
5	Choices	Quantitative
6	Time Horizon	Cross Sectional for primary survey and longitudinal for secondary data
7	Procedures	Structured Questionnaire & Financial Data from Prowess

A preliminary study was conducted on the basis of interviews. Semi-structured interviews were conducted for 44 SME owners. The idea behind this was to find out the perception of SME owners regarding the different sources of finance. This helped in developing the research instrument for the main research. The objectives of the study were accomplished based on primary and secondary data. Firstly, to identify and analyse the financing preferences and practices of SMEs in India, a primary survey was conducted on SMEs. Further, the PROWESS database of the Centre for Monitoring Indian Economy (CMIE) was used to examine the factors driving the capital structure decisions of SMEs in India.

1.6. RESEARCH METHODOLOGY

The present research used the triangulation technique to achieve the stated objectives. The triangulation technique uses two or more independent sources of data or data collection methods to corroborate research findings within a study (Bryman, 2006).

1.6.1 Primary Survey Method

The survey method is used to achieve the first three objectives of the study. A structured questionnaire is prepared on the basis of findings from the preliminary interviews and the previous studies conducted on SME financing (Mohamad Zabri, 2013; Borgia and Newman, 2012; He and Baker, 2007). The questionnaire was sent to various subject experts (academicians working in this field) and industrial experts (officials from the MSME-Development Institute) to assess the content validity of the instrument. The final draft was prepared after incorporating the suggestions received from the experts. The questionnaire was pilot tested on the data collected from 37 SMEs. The research instrument was divided into six sections. Section 1 captures the demographic details of firms and the respondents, and Section 2 deals with the financing preferences of the study. Section 3 covers financing practices. Section 4 entails the details of preferred and availed financial resources during the different phases of a firm's life cycle. Finally, Section 5 captures the factors affecting the financing decisions of SMEs in India.

The study was mainly conducted in the northwest region of India. The sampling frame was derived from various agencies such as National Small Industries Corporation (NSIC), MSME-Development Institutes (through seminars and the souvenirs of various industrial exhibitions), Industrial Directories and the other private directories, namely, data published on Bizbaya.com, etc. Finally, a sampling frame of 2789 was selected for the study. Multiple data collection methods were used

to gather data for the study. This resulted in a total of 323 responses. After screening all the responses, 14 responses were discarded due to lack of information. This thus resulted in a final sample of 309 responses with a response rate of 11.08%.

1.6.2 Secondary Data

The financial data pertaining to the fourth and final objective of the study was taken from the electronic database PROWESS of CMIE for the period 2006-2014. The sample was chosen as per the MSMED (Micro, Small and Medium Enterprises Development) Act 2006, which states that manufacturing firms having an investment of up to 100 million are considered as SMEs and those with an investment of up to 50 million are considered as service sector SMEs. The firms chosen for this study must have had the following prerequisites: an investment in plant and machinery as per the guidelines of the MSMED Act 2006 for the selected period; no inconsistent financial data for the chosen period of 9 (2006-2014) years. Accordingly, several firms for which data were not available for the whole period were discarded. Moreover, the use of balanced panel data prohibits the entry of any firm with a single missing data in any of the chosen years and thus the final sample comprises 537 non-financial firms.

1.6.3 Methods of Analysis

This study uses various statistical techniques for analyzing the data collected through a structured questionnaire and the PROWESS database. Statistical software like SPSS version 23.0 was used for the coding and analysis of primary data while E-views 8.0 was used for the analysis of panel data. Table 1.2 outlines specific statistical techniques associated with the objectives of this study. This study was mainly based on the primary survey conducted with the help of a structured questionnaire. The assumptions associated with all the statistical techniques have been tested before application. The study has applied univariate, bi-variate and multi-variate analysis. The research objectives were achieved by gathering data from multiple resources through multiple methods. The table 1.2 maps the research objectives with the respective method of analysis which are depicted as follows-

Table 1.2- Methods of Analysis

The table presents the methods of analysis used in the study to accomplish the research objectives

S.No.	Research Objectives	Data Collection Method	Methods of Analysis
1	To identify and analyse the prevalent financing preferences of SMEs.	Primary Survey	Descriptive Statistics, independent t-test , ANOVA
2	To determine the strength of the association between the financing preferences of owners/managers and the current capital structure of SMEs.	Primary Survey	Descriptive Statistics, Correlation , paired t-test
3	To establish the relationship between the attributes of SME owners/managers and financing preferences of firms.	Primary Survey	Descriptive Statistics, Stepwise Regression
4	To investigate the factors determining the capital structure and test the applicability of capital structure theories to SMEs.	Primary Survey and Secondary Data	Descriptive Statistics, Kruskal-Wallis Test, Correlation, Generalized Method of Moments (GMM)

1.7 CONTRIBUTION OF THIS STUDY

This study contributes to the theoretical, methodological and practical knowledge of SME financing and thereby assists in developing an understanding towards the financing behaviour of SMEs in India.

This study appends the literature on financial studies of SMEs. It examines the financing preferences of SMEs from different aspects. The study adds to the theoretical knowledge by providing the new empirical evidence on SME financing. It also examines the capital structure determinants of Indian SMEs which is relatively lesser studied in the Indian context. The study bridges the gap between theory and practice by testing the applicability of capital structure theories in the context of Indian SMEs.

Furthermore, this research contributes to the new dimensions in the study of Indian SMEs by examining the relationship between selected managers' characteristics with their level of financing preferences and the factors driving the capital structure decision of these firms. These parameters haven not been largely

captured by earlier studies on Indian SMEs. This study fills the existent gap in the burgeoning literature on SME financing in India.

The triangulation technique adopted in this study provides a methodological contribution to the research on SME financing in India. The mixed method approach adopted in this study to accomplish the objectives paves a new path for designing research methodologies apart from the conventional ones.

The study helps in generating a greater awareness among Indian SMEs for the various sources of finance available in the market. The study also assists SME owners in understanding the effect of firm specific variables on the leverage ratios. The present research highlights the difference between financing preferences and practices of SMEs and thereby guides the policy makers in focusing on timely and adequate supply of financial resources.

1.8 ORGANIZATION OF THE THESIS

This study has been completed in four main phases: The first phase consists of development of the contextual and theoretical understanding of the research area. It comprises the introduction to the study. It further describes the research background and rationale behind the study. It lays the outline of the study by briefly explaining the research objectives, design and methodology of the study. This is followed by a comprehensive review of the literature on various aspects of SME financing which includes sources of finance available and accessible by SMEs and factors affecting financing decisions of SMEs.

The first phase of this study thereby reveals the existing research gaps in the literature and has further assisted in the designing of a conceptual framework for the current study. This marks the completion of the conceptual phase of this study. The details of first phase have been covered in the first three chapters of this thesis.

The second phase involves the development of a research design on the basis of the stated research objectives. This study adopts the mixed method approach. It uses triangulation techniques and thereby examines the financing issues of SMEs from different angles. It commences with the collection of primary information about the real-time financing constraints faced by SME owners. This was achieved by using the "convergent interviewing" technique and it highlights the common key issues faced by different SME owners. The information thus obtained has been further used in the development of a research instrument for the main study.

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Figure 1.1 Organization of the Study

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        │    Introduction     │········┐
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                  │                     └──│ Phase 1-Development of   │
                  ▼                        │ contextual and theoretical│
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        │   Research Design   │        │   ┌──────────────────────────┐
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                  │                        │ execution path of research│
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        │    Conclusions      │
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Figure 1.1 presents the outline of the study in a systematic and ordered manner. It summarizes the research process in accordance with the gradual development of the study.

The research instrument has been developed to collect primary data. It helped in collecting information related to the financing preferences and practices of SMEs in India. The secondary data entailing the financial data of SMEs has been extracted from the PROWESS database of CMIE. This marks the completion of the second and third phase of this study. This is presented in chapter 4 of this thesis. The final phase of this study comprises data analysis, research findings and conclusions of the study. Data analysis is presented in the subsequent three chapters. Chapter 5 presents the findings of the preliminary study. Chapter 6 describes the primary data and illustrates the analysis and findings of the first three research questions related to the financing preferences of SMEs. Chapter 7 showcases the analysis and findings of the fourth research question pertaining to the capital structure determinants of SMEs. Chapter 8 concludes the study by describing the key findings, suggestions, contributions, limitations and future research directions.

CHAPTER -2
REVIEW OF LITERATURE

CHAPTER 2

REVIEW OF LITERATURE

Preface

Review of the literature recapitulates the body of knowledge related to a particular area. The central idea of this chapter is to provide a comprehensive literature review of the small and medium enterprise (SME) financing in India. This chapter presents the overview of SMEs in India, sources of funds used by SMEs, factors driving the capital structure decisions of SMEs and theoretical relationship between capital structure and its determinants. It further describes the influence of firm- and owner-specific factors on the financial decision making of SMEs followed by the impact of major macroeconomic variables on SMEs.

2.1 INTRODUCTION

The SME sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last three decades. Undoubtedly, SMEs significantly contribute to production, export and employment. The sector produces a wide range of products from simple consumer goods to high precision and sophisticated finished products. Therefore, the SME sector plays a pivotal role in making the growth trajectory of progressing India. It continues to display the noteworthy resilience in the face of trailing global and domestic conditions. The next section provides the definition and contribution of SMEs in India.

2.2 SMEs IN INDIA

The Micro, Small and Medium Enterprises Development (MSMED) Act was enacted in 2006. This act deals with policy issues affecting SMEs. It also specifies the investment limit of the sector. It provides the first ever legal framework for recognition of the concept of "enterprise" which comprises both manufacturing and service entities. It defines medium enterprises for the first time and seeks to integrate the three tiers of these enterprises, namely, micro, small and medium (MSME Annual Report, 2016).

In accordance with the provision of the MSMED Act, 2006, Micro, Small and Medium Enterprises (MSME) are classified into two categories:

1. **Manufacturing Enterprises-**These include enterprises engaged in the manufacturing or production of goods. Manufacturing enterprises are defined in terms of their investment in plant and machinery.

2. **Service Enterprises-**These enterprises are engaged in providing or delivering of services and are defined in terms of investment in equipment.

The investment limits (upper-lower) in plant and machinery / equipment for manufacturing and service enterprises in the SME sector are given below in table 2.1-

Table 2.1 Classification of SMEs

This tables portrays the classification of manufacturing and service SMEs (includes micro, small and medium) on the basis of investment in plant and machinery/equipment.

Type of Enterprises	Manufacturing	Service
Micro	Rs 2.5 millions / Rs 25 lakhs	Rs 1 millions /Rs 10 lakhs
Small	Rs 50 millions / Rs 5 crores	Rs 20 millions / Rs 2 crores
Medium	Rs 100 million /Rs 10 crores	Rs 50 millions /Rs 5 crores

Source: MSME Annual Report 2015-16; Exchange Rate: 1USD:64.4400

2.2.1 Activity-wise Division of SMEs

Based on their operation, SMEs can be classified into manufacturing and service industries. These firms manufacture >8000 products ranging from handmade products to high precision machine parts. These also offer numerous services catering to both industrial and consumer markets. This evidently indicates the diversity within the two categories.

According to a report of IFC (2012), there are about 29% SMEs in the manufacturing sector and 71% SMEs operating in the service sector of the Indian industrial arena. Manufacturing SMEs support the supply chains of large firms and local consumer markets. The food processing industry is the major contributor of supply chains. Service SMEs operate in traditional industries mainly in retail and trading. These firms are also associated with industries such as information technology and consulting services. In spite of the fact that the service sector accounts for a large number of enterprises, it is the top ten industries in the manufacturing that account for 75% of the sector's total output. Table 2.2 presents the industry wise

contribution of manufacturing and service SMEs in the Indian industrial arena. The brief summary of the share of output is presented below-

Table 2.2 Activity wise Classification of SMEs

This table presents the share of output of various industries operating in the manufacturing and service sector of SMEs.

Manufacturing SMEs		Service SMEs	
Industry	*Share of Output*	*Industry*	*Share of Output*
Food Products and Leverage	19%	Agriculture based activities	1.3%
Textiles	10%	Repair and Maintenance	1.1%
Basic Metals	10%	Retail	0.7%
Chemical Products	8%	Professional Business Activities	0.6%
Metal Products	7%	Computers and Information technology	0.3%
Machinery Equipments	6%	Transport and Travel Agents	0.3%
Wearing Apparel	5%	Forestry and Logging Activities	0.3%
Rubber and Plastic Products	4%	Other Service Activities	0.2%
Transport Equipment	3%	Utility Supply	0.2%
Non Metallic Mineral Products	3%	Post and Telecommunication	0.1%
Total	*75 %*	*Total*	*5%*

Source: IFC Report (2012)

2.2.2 Contribution of SMEs to the Indian Economy

The SME sector is very valuable for the Indian economy. There are about 51.06 million enterprises in different industries that provide employment to around 120 million people in the country. SMEs are the second largest employment providers after agriculture and also contribute in fostering the industrial development of the country. SMEs account for 90% of the present industrial arena and are pivotal for the holistic development of the country. According to the Economic Survey 2011-12, *"MSME is a dynamic and vibrant sector that nurtures entrepreneurial talent besides meeting social objectives including that of providing employment to millions of people across the country".*

The number of SMEs have continuously increased from 2006-07 to 2014-15 at a consistent growth rate of 4%. The MSME Annual Report (2015) also indicates that SMEs are also providing employment at a persistent rate of 5%. Furthermore, the

market value of fixed assets has also shown a continuous growth (8% approximately) during the period of 2006-07 to 2014-15.

Table 2.3 Performance of SMEs- Employment and Investment

This table represents year wise detail of number of SMEs, employment to number of persons, and market value of SME's fixed assets.

Year	Total SMEs (in millions)	Employment (in millions)	Market Value of Fixed Assets (in crores)
2006-07	36.17	80.52	868,543.79
2007-08	37.74	84.20	920,459.84
2008-09	39.37	88.08	977,114.72
2009-10	41.08	92.18	1,038,546.08
2010-11	42.87	96.51	1,105,934.09
2011-12	44.76	101.17	1,182,757.64
2012-13	46.75	106.14	1,268,763.67
2013-14	48.85	111.43	1,363,700.54
2014-15	51.06	117.13	1,471,912.94

Source: MSME Annual Report 2015-16

The above figures evidently indicate the significant contribution of SMEs to the Indian industrial ecosystem. According to the Confederation of Indian Industries (CII), SMEs contribute around 7% of the manufacturing gross domestic product (GDP) and 31% of the GDP from service activities. The sector also adds to about 37% (see table 2.4) of India's manufacturing output. Further, the sector has consistently maintained a growth rate of >10%. This is significantly higher than the overall growth rate of the economy.

Table 2.4 Contribution of SMEs in GDP and Output

Table 2.4 depicts the sector wise share of SME sector in India's GDP. It also shows the contribution of SMEs in the total manufacturing output of the country

Year	Share of SME sector in Total GDP (%)			Share of SMEs' Total Manufacturing Output (%)
	Manufacturing Sector (SMEs)	Service Sector(SMEs)	Total	
2006-07	7.73	27.40	35.13	42.02
2007-08	7.81	27.60	35.41	41.98
2008-09	7.52	28.60	36.12	40.79
2009-10	7.45	28.60	36.05	39.63
2010-11	7.39	29.30	36.69	38.50
2011-12	7.27	30.70	37.97	37.47
2012-13	7.04	30.50	37.54	37.33

Source: MSME Annual Report 2015-16

According to the Development Commissioner (DC) MSME, SMEs contribute to 45-50% of the total exports in the Indian economy. Direct exports from the SME sector accounts for 35% of the total exports and it is also estimated that indirect contribution accounts for 15% to the Indian export. This takes place through merchant exporters, trading houses and export houses. It may also be in the form of export orders from large firms or the production of parts or components used for finished exportable goods. SMEs are dominant players in some of India's major export sectors, namely, *Textiles and Garments, Leather products, Sports goods, Gems and jewellery and Handicrafts*. They also contribute substantially to the industrial goods segment (e.g. electrical, engineering, rubber and plastics).Despite the sizeable contribution of SMEs to Indian exports, <0.5% SMEs is actually involved in export activity.

SMEs play an important role in maintaining the economic health of developed and developing countries. In emerging economies, SMEs work on the static and dynamic fronts. On the static front, SMEs contribute to a country's output and generate employment, whereas on the dynamic front, they serve as a nursery for the growth of large firms and provide the next level for growing micro-firms and also contribute to the national income of a country. The following reasons persuaded us to focus exclusively on SMEs in India: India is one among the top emerging economies of Southeast Asia and SMEs account for 90% of the Indian Industrial Ecosystem. Besides, SMEs provide employment to a very large and needy section of the Indian society, and foster international trade by promoting export and supporting and encouraging the spirit of entrepreneurship. This noteworthy social and economic contribution of SMEs makes them one of the major drivers of the Indian economy and motivates researchers to study these growth enablers in the context of their financial growth and development.

2.3 SME FINANCING IN INDIA

The availability of finance has been documented as a critical factor affecting the growth, profitability and development of SMEs (Ou and Haynes, 2006; Cook, 2001). The requirement of timely and adequate capital concoction is the utmost necessity for SMEs in India. Financing of SMEs is altogether different when compared with that of large firms. This is because these firms do not have easy access to public equity as well as other formal financial resources (He and Baker, 2007). These firms mainly rely on owner's funds and other informal resources. According to Ang (1991), SMEs are primarily managed by owners, who generally do not possess specific expertise

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required for technical issues like financing. Moreover, transaction cost in SMEs is usually higher as compared to that in large enterprises. This limits the financing options available to these firms. Further, the prime reason for the failure of SMEs is inadequate supply of finance (Van Auken and Neeley, 1996; Coleman, 2000).

Financing issue is a common phenomenon among SMEs in India. Because the financial ecosystem is not well equipped with the kind of instruments required bridging this lacuna, SMEs are suffering from the issue of *"missing middle"* in the country. SMEs are neither too small to be financed with microfinance lending nor are they too large to significantly access formal debt lending. Issues like heterogeneous nature, absence of systematic financial records, lack of bankable collateral further aggravate the problem of formal lending for the SME sector.

The statistics compiled in the Fourth Census of the MSME Sector by DC MSME (2009) have revealed that only 5.18% of the units (both registered and unregistered) had availed finance through institutional sources, 2.05% from non-institutional sources and the majority of units (i.e. 92.77%) had no finance or depend on personal finance.

The research project report by Oum *et al.* (2011) on the East Asian economies indicates that a significant number of SMEs rely on internal funding for both start-ups and growth of their business. It is also documented that external finance is significantly important for small firms. As per a report of IBEF (2013), availability of funds at competitive rates is considered to be an important factor to fund long-term growth plans and short-term working capital needs of SMEs. Studies conducted on SME financing have unanimously pointed out the problem of credit constraint among SMEs in India.

Banks are the main source of external financing for SMEs in India. According to Biswas (2014), external finance is costlier and is limited for SMEs. However, it is positively indispensable for investment in long-term projects or asset creation. Therefore, issues related to the outsourcing of external financing options available for SMEs need to be addressed to understand the accessibility of these options. Prasad (2006) highlighted that Indian banks show hesitance in providing finance to SMEs, due to their inability to provide secured assets, high levels of nonperforming assets, high transaction costs and the inability to verify the creditworthiness of applicants. The Asian Development Bank (2014) has also pointed out that barriers to accessing finance by SMEs in India from formal institutions include the requirement for

collateral or a guarantee, inflexible policies, high rates of lending, complicated procedures and entrepreneurs' lack of financial knowledge of applicable schemes. Ambrose (2012) also identified barriers to effective financial assistance to SMEs, which included the absence of collateralized security, and the regulatory framework. The aforementioned issues identified in the literature highlight the necessity of studying the source of finance availed by SMEs for funding their operations.

Therefore, it is indispensable to understand the nature of the type of financial resources available to SMEs. The next section deals with the sources of funds available for SMEs in India. It also gives the probable reasons for availing a particular source of finance and reasons behind the inaccessibility of a particular financial resource.

2.4 SOURCES OF FINANCE FOR SMEs IN INDIA

According to IFC (2012), the SME sector receives Rs 32.5 trillion from different sources of funds. These sources are all inclusive of formal and informal lending besides personal funding. The contribution of informal resources and self-finance is Rs 25.5 trillion. Informal sources of lending are the major providers of funds (95.68%) to the Indian SME sector. The remaining Rs 6.9 trillion is provided by banks and nonbanking financial institutions (NBFIs). Among formal financial resources, 91.8% supply of funds is channelized through banks.

Allen *et al.* (2012) classified the sources of funds into four major categories, namely, internal sources, Bank/FI finance, market finance and alternative source of finance. Table 2.5 provides a description of sources of funds for non-financial firms during the 5-year period 2001-2005, based on the Prowess database of CMIE. For a given category of firms, the numbers reported in the tables are obtained by first calculating the average funds from each funding source during 2001-2005 for each of the firms, and then summing across all firms and expressed as the percentage of the total funds from all sources obtained during the same period (Allen *et al.*, 2012). The table 2.5 also indicates that internal sources and alternative form of finance in the form of trade credit and private equity are major sources of finance for SMEs. Internal sources also contribute to the funding of SMEs. Among formal sources, funds from banks and financial institutions (FIs) form the major part of the financial structure of SMEs.

Table 2.5 Sources of Finance Availed by SMEs

The tables provides evidence on the sources of (new) funds for non-financial Indian firms during the 5-year period of 2001-2005, based on the Prowess database of CMIE.

S.No.	Source of Finance	All SMEs	Manufacturing SMEs	Service SMEs
1	Internal sources	15.11	11.04	21.45
2	Equity (Private+ Public)	31.59	33.44	28.7
3	Capital Market+ Debt	6.99	9.71	2.8
4	Banks/FIs	21.62	24.61	17.0
5	Debt: Group Promoters	3.4	4.29	2.0
6	Trade Credit	15.83	14.11	18.51
7	Other Sources	5.5	2.81	9.6

Source: Allen et al. (2012)

2.4.1 Equity Financing

According to Ou and Haynes (2006), *"equity capital is that capital invested in the firm without a specific repayment date, where the supplier of the equity capital is effectively investing in the business"*. Equity financing can be categorized into two parts, namely, internal and external equity.

2.4.1.1 Internal Equity- It comprises owner's funds and retained earnings. Owner's fund is the major source of funding due to information opacity and moral hazard issues during the initial stages of SME development. However, the dependence on owner's funds is reduced in later stages of development and firms prefer to search for other financial resources to meet their requirements. Generally, SME owners are conservative in nature and do not prefer to pay interest on loans; they thus prefer to finance their operations with retained earnings. Internal funding is the major source of funding for SMEs in developed and developing countries. Studies conducted in the UK and China (Hussain *et al.*, 2006), US (He and Baker, 2007), China (Borgia and Newman, 2012) and Malaysia (Mohammad Zabiri, 2013) also advocate SME owners' preference of internal funds.

2.4.1.2. Public Equity-External equity comprises procurement of funds through public capital, venture capital, business angels and other private investors. Equity capital generally helps in enhancing the credibility of new and young firms. However, external equity is least preferred by SMEs. This is because owners are control aversive in nature and do not want any undesirable change in the ownership (Reid, 1996) and therefore do not prefer funds from external investors. Moreover, in India, capital markets for SMEs are at a very nascent stage of development. There are only 164 SMEs listed on the BSE-SME exchange in India. This is mainly due to the

inability of fulfilling the requirement of capital markets, mainly in terms of net worth and profitability. Moreover, unwillingness of SME owners due to dilution of control is the major reason behind the underutilization of capital markets. However, owners have shown increasing interest in equity finance through SME listing, but the numbers do not provide any supportive evidence in this regard. Berger and Udell (1998) also support the fact that importance of external equity can only be measured based on the ultimate success of a firm rather than on the quantity used by the firm.

2.4.1.3 Venture Capital- It can be defined as the *"concept of investment in the form of equity, quasi equity or conditional loan made in the new, unlisted, high-risk or high-tech firms started by technically or professionally qualified entrepreneurs"* (Pandey, 1998). The prime aim of venture capital funding is to earn a high rate of return. Venture capitalists methods however are different from those of traditional money lenders. This is because they also participate in the monitoring and screening of the investment and thereby supervise the strategic planning and decision making of the firm (Gorman and Sahlman, 1989).

Venture capital (VC) financing is an emerging source of financing for SMEs, especially at start-up and expansion stages. VC financing for SMEs is at its nascent stage in India. The small size and the non-corporate structure make fund providers reluctant to invest in such ventures. Moreover, high transaction cost and difficulty of exiting from such investments also restrict venture capital financing of SMEs.

However, the scenario of VC funding has changed during these years in India. Nowadays, government-managed financial institutions like the Small Industries Development Bank of India (SIDBI) have initiated measures to induct funds at a reasonable and affordable cost. These institutions also share the risk and provide the expertise required by SMEs. Apart from SIDBI, other new VCs provide funds to SMEs. These include *Helion Venture Partners, Erasmic Venture Fund, Seed Fund and Upstream Ventures*. Despite this, Information technology is the most preferred investment option of venture capitalists.

2.4.1.4 Business Angels-Business angel finance is an indirect market for direct finance (Berger and Udell, 1998). According to Madill *et al.* (2005), angels are primarily wealthy individuals with a long business experience and they invest directly in high growth SMEs. They generally do not have any earlier experience with these firms. This form of investment is usually a part of external equity financing.

Business angel finance is suitable for SMEs due to its exclusive features. First, angels generally provide the seed capital required at the time of incubation. Next, they have longer exit horizons and lastly angel investors prefer to invest in local economies. Therefore, this form of finance serves as a bridge by supplying finance to SMEs in the form of external equity. However, business angel financing is a new phenomenon in India and therefore needs to be encouraged through creation of an enabling policy environment. Angel investing is probably speeding up in India and there are angel investor groups, namely, *Indian Angel Network, Mumbai Angels and Hyderabad angels,* who have invested in many start-ups, too. The government of India has also promoted the flow of angel funds to SMEs through SIDBI.

2.4.2. Debt Financing

Financing decisions of SMEs are mainly governed by owners (Borgia and Newman, 2012). SME owners generally do not prefer to lose control in their firms by raising external equity. Further, internal financing is not sufficient to fund their operations. Therefore, to retain their ownership and control in the business, SME owners preferred debt financing as compared to external equity financing. Moreover, external equity financing is still at the embryonic stage in India for SMEs. Hence, debt financing becomes the preferred choice of SME owners in India after internal equity financing.

Wu *et al.* (2008) identified that debt financing decisions of SMEs are different from those of large firms. In large firms, managers have a wide range of choices to select among different debt alternatives, whereas SMEs are more inclined to borrowing from banks, financial institutions and government financing schemes. Moreover, SMEs use more short-term debt as compared to long-term debt. This is because information opacity is a severe issue among SMEs. Therefore, transaction-based lending from formal institutions becomes evidently difficult in SMEs. Therefore, long-term lending relationships are required to procure funds and to mitigate the probability of issues arising from agency problems. Debt is generally issued to lower agency cost but this is also not in favour of SMEs. This is because in owner-governed SMEs, it is not clear whether debt can reduce the agency cost or not.

On the basis of repayment period, debt can be classified into two forms, namely, short- and long-term debts. Kumar and Rao (2016) documented that Indian SMEs mainly use short-term debt to finance their operations. Further, the literature also supports the use of short-term debt by SMEs (Love and Peria, 2005; Allen *et al.*,

2012). The various channels of debt financing are banks, financial institutions, non-banking financing companies.

2.4.2.1 Bank Financing-According to Thampy (2010), banks are the prime channels of external financing for SMEs. The importance of banks becomes more evident when SMEs are not able to access funds from capital markets. Generally, SMEs use the financial services of banks in the form of cash credit and overdraft facility. These sources have been mainly used for the fulfillment of working capital requirements. Moro *et al.* (2010) suggest that bank financing is more beneficial for SMEs as compared to other sources. Keasey and Mc Guinness (1990) attest that bank financing generates a high return for SMEs. It assists SMEs in achieving higher performance levels. This is probably due to the fact that fear of financial distress compelled SMEs to deploy funds more efficiently.

Banks that lend to micro and small firms are considered for priority sector lending. However, medium-sized firms are not considered in the scheme of priority sector lending. According to the guidelines of the Reserve Bank of India (2014), 40% of the total advances to micro and small enterprises should go to manufacturing microenterprises having an investment in plant and machinery of up to Rs 10 lakhs and service microenterprises having an investment of up to Rs 4 lakhs and 20% of the total advances should go to manufacturing microenterprises having an investment in plant and machinery above Rs 10-25 lakhs and service microenterprises having an investment above Rs 4-10 lakhs. However, Indian SMEs procure only 25% funds from banks and financial institutions (De, 2010). This is because SMEs are not obliged to publish financial statements and thereby create the issue of information opacity.

Banks also provide working capital assistance to SMEs in the form of direct lending or letter of credit. Term loans are an important source of finance provided to SMEs by banks. These are provided for purchasing fixed assets such as land and plant and machinery. Apart from this, financial institutions such as SIDBI, NSIC and National Bank for Agriculture and Rural Development (NABARD) also provide financial and operational assistance to SMEs. SIDBI supports SMEs with various kinds of schemes such as Direct Assistance Scheme, Indirect Assistance Scheme, Promotional and Development Activities, National Equity Fund Scheme, Technology Development and Modernization Fund Scheme, Single Window Scheme, Mahila Udyam Scheme and Equipment Finance Scheme. NSIC also supports SMEs by providing machines on

hire purchase terms. It helps the supply and distribution of imported raw material and supports export-oriented activities. NABARD offers assistance especially to the cottage and village industry.

However, banks require information about the credit risk of the borrower. According to Myers and Majluf (1984), borrowers have more information about the firm as compared to the lender. Disbursement of funds depends on this critical information and this inability of lenders to access the fundamentals of the firm will lead to inefficient allocation of funds. The problem of information asymmetry is more pronounced for SMEs. There is another aspect depends on the financial performance of the firm. Banks are hesitant in lending to SMEs due to low profitability, unavailability of prerequisite collateral and high mortality rates (Bhattacharya *et al.*, 2000). The perception of an SME as a high-risk and commercially unviable proposition to lend to has resulted in only a few SMEs receiving formal financial assistance (Ambrose, 2012).

2.4.2.2 Non-Banking Financial Institutions-Researchers separate financing available from non-banking financial institutions (NBFIs) with bank finance due to issues of regulatory policy (Berger and Udell, 1998; Ayyagari *et al.,* 2011). NBFIs include insurance companies, housing finance companies, pension funds, investment companies, infrastructure finance companies and gold loan companies. Arena (2011) asserted that non-bank debt has been largely ignored in the finance literature. However, the importance of these institutions lies in the fact that their procedures are simple and have longer maturity periods (Ateino, 2001).

NBFIs are an integral part of the Indian financial system. These firms complement the banking sector and thereby help in supplying the credit to the unbanked segment of the society, especially SMEs. According to a report of PWC (2016), it is documented that a large section of SMEs are excluded from the formal financial sector. Although banks and NBFIs are making an effort to serve this attractive yet underserved segment, due to their inability to evaluate the credit potential of borrowers, these institutions are unable to lend the desired credit required by the SMEs in India.

2.4.2.3 Grant Financing-Grant financing is also referred to as the financing obtained through government bodies. These schemes have been channelized through public sector banks and financial institutions. The government of India has also taken various steps in the up-liftment of the SME sector. The important schemes that offer financial assistance to SMEs are Credit Guarantee Fund Scheme (CGFS), Credit

Linked Capital Subsidy Scheme for Technology Up-gradation (CLCS), Mini tool rooms and Training Centre Schemes, National Award Scheme and Market Development Assistance Scheme for SMEs. Apart from these, Scheme of Fund for Regeneration of Traditional Industries (SFURTI), Prime Minister Employment Generation Programme (PMEGP) and National Manufacturing Competitiveness Programme are also among the effective programmes initiated by the government of India. However, due to the lack of awareness about the benefits and advantages of these schemes, SMEs have not been able to procure funds through these effective channels of finance.

2.4.3 Other Forms of Financing

SMEs rely on multiple sources of funds such as owner's funds, retained earnings, banks and financial institutions, government financing, trade credit, funds from family friends and relative and money lenders. The choice of source mainly depends on its ease of availability at the time of requirement. Undoubtedly, internal sources are not enough to fulfill the financing requirements of SMEs; therefore, firms look forward to procuring external finance. The dependence on alternative sources of financing is mainly due to the lack of adequate credit flow from formal financial sources. Formal financial resources have their own constraints in the form of procedural issues, delay in reimbursement, reluctance of financial institutions due to lack of proper financial information about firms, etc. Hence, SMEs are supposed to have a higher dependence on alternative channels of finance.

De (2010) documented that the financing pattern of SMEs are radically different from those of large firms. SMEs largely depend on informal channels of financing. Fifty percent of their total funding comes from alternative channels such as trade credit, money lenders and family friends and relatives. These channels form a predominant source of financing for SMEs.

Kumar and Rao (2016) stated that trade credit is most frequently used by Indian SMEs to fulfill their requirements. García-Teruel and Martínez-Solano (2010) defined trade credit as a delay in the payment for goods or services. This was done on the basis of mutual agreements between the supplier and the firm. Trade credit is a preferred source of financing mainly due to transaction and financing motives of the firm (Elliehausen and Wolken, 1993). According to He and Baker (2007), SMEs mainly retort to trade credit for working capital purposes.

Funds received from family, friends and relatives are also known as love capital. This is also one of the important resources of fund supply at the early stages of a business. Hussain and Matlay (2007) supported the use of funds from family, friends and acquaintances for satisfying the financial needs of small firms. Other forms of financing can also be classified as a part of bootstrap capital.

Freear *et al.* (1997) defined bootstrap financing as *"highly creative ways of acquiring the use of resources without borrowing money or raising equity financing from traditional sources"*. It can also be stated as the modest use of personal funds for financing a venture (Bhide, 1992). According to Van Auken and Neeley (1996), bootstrap financing includes all sources of finance apart from owner's fund and debt from formal resources. It includes funds from family, friends and relatives, home equity loans, credit cards, life insurance, supplier credit, delayed payments, leases and customer financing. These alternative methods provide the required capital base to support the smooth running of firms. The financial resources associated with bootstrap capital are easy to obtain, convenient and offer fewer requirements. Moreover, mortgage of any physical resource is not necessary to access bootstrap capital.

Bootstrap capital is more important to small firms because they face impediments in raising external capital. This is primarily due to the underdeveloped capital markets and inability to attract external investors (Van Auken and Carter, 1989; Holmes and Kent, 1991). Tighter credit control and internal credit rationing by SME owners help them in funding business operations. Thus, alternative channels of finance provide a substitute for formal financial resources. Moreover, these financing channels also facilitate in creating credit history for SMEs and thereby paving the path for accessing formal financial resources.

Financial resources are among the fundamental resources required for the smooth operations of a firm. How these resources are procured is really a question of utmost importance for a firm. Therefore, firm financing is considered to be a formidable task and one has to go beyond theory. Moreover, as far as SMEs are concerned, the financial ecosystem is not always conducive for them and these firms are facing obstacles in procuring funds from the desired resources. This is the tale of every SME worldwide whether operating in developed economies or developing economies (Bocock and Wahab, 2001). According to Hussain *et al.* (2006), personal finance and alternative source of finance are the prime resources for SME business owners in the

UK. He and Baker (2007) reported that personal savings and banks loans are the most common start-up financing options for entrepreneurs in the US. De (2010) portrays the enormity of both short-term and long-term financing for Indian SMEs and similarly the majority of Chinese SMEs do not have enough capital to meet their long-term requirements (Husaain *et al.*, 2006). The concern of SMEs' access to finance is considered as a fundamental structural issue (EIS and Lang, 2012). Therefore, there is an emerging need to understand this thin line of difference between financing preferences and practices of SMEs.

The description of the major sources of finance necessitates the studying of preferred financial resources of SMEs as compared to the availed ones. It eventually highlights the difference between preferred and availed financial resources and subsequently helps in addressing the financing issues more effectively. The study on financing preferences helps in explaining the financing behaviour of SMEs in India. The theoretical background of firm financing is also important for understanding the financing behaviour of SMEs. Moreover, most firm financing theories have been developed in the context of large firms. Therefore, the next section describes the major financing theories and the empirical literature on SMEs. It includes the studies based on the capital structure determinants of SMEs.

2.5 FIRM FINANCING THEORIES

Welsh and White (1981) defined small business management as *"a distinct discipline characterised by severe constraints on financial resources, a lack of trained personnel, and a short-ranged management perspective imposed by a volatile competitive environment"*.

Despite the significant contribution of SMEs to the Indian economy, the majority of management theories and research are still centered on large firms (Reboud *et al.,* 2011). This section reviews the major finance theories related to the financing decisions of the firms in general and SMEs in particular.

Firm financing decisions are among the most crucial and critical decisions taken by firms. Finance is required by firms to manage their operations. Further, to expand and grow, firms invest in new projects or increase their capacities to meet the growing demand of the market. It requires planning of procurement of financial resources for long-term purpose. Capital structure of any firm defines its long-term liabilities. It is primarily a fusion of debt and equity. The proportion of debt and equity differs from

firm to firm. Several researchers have put forward their views on how firms finance their long-term operations.

Researchers, in general, tend to have a different perspective of capital structure. Table 2.6 recapitulates all the major views of renowned researchers on capital structure.

Table 2.6 Emergence of New Concepts in Capital Structure

This table summarizes the evolution of new concepts in the literature of capital structure of firms.

S.No.	Name of Researcher	Year	Researcher's Outlook/Contribution
1	Modigliani and Miller	1958	Laid the milestone in corporate finance by propounding the *"Theory of Irrelevancy"*. As per this theory capital structure has no impact on firm's value
2	Modigliani and Miller	1963	Included taxes and considered the effect on tax shield on interest payments
3	Miller	1977	Included personal and corporate tax in the consideration of financing decisions
4	Kraus and Litzenberger	1973	Provided the classical version of *"Trade-off theory (TOT)"*.This theory considers the trade-off between cost of financial distress and benefits of tax shield of debt
5	Bradley *et.al*	1984	Presented *"static trade-off theory"*
6	Kane *et al.*	1984	First to consider the effect of continuous time model in trade- off theory with cost, taxes, uncertainty and tax benefits. This is known as *"Dynamic Trade-off Theory"*.
7	Stiglitz	1973	Concluded that *"Leverage ratio is the fortuitous outcome of the profit and investment history of a firm"*. Initiated the concept of *pecking order*
8	Fischer *et al.*	1989	Introduced the concept of *transaction cost* in capital structure and argued that variation in debt ratio can also occur due to a small transaction cost.
9	Jensen and Meckling	1976	Put forward the concept of *Agency cost* and presented the effect of manager–shareholder conflict and debt holder–shareholder conflict on financing decisions and introduced *"Theory of Agency Cost"* in the literature of capital structure.
10	Myers and Majluf	1984	Pioneered the concept of "Information asymmetry that leads to *"Adverse Selection"*. Based on this, they propounded *"Pecking Order Theory" (POT)*, which prefers internal funds to debt and debt to equity

S.No.	Name of Researcher	Year	Researcher's Outlook/Contribution
11	Harris and Raviv	1990,1991	Reviewed the literature of capital structure theories and found that "capital structure decisions are inconclusive". They put forward the concept of *"control driven theory"*.
12	Baker and Wurgler	2002	Introduced *"Market Timing Theory"* in the area of capital structure. This theory states that firms issue equity when the market is overvalued and issue debt when the market is undervalued.
13	Ross	1977	Perceived debt issuance as an indicator of good performance of a firm as opposed to equity issuance. This led to the emergence of *"Signalling Theory"* of Capital Structure
14	Uckar	2012	Reviewed the concept of *"Behavioral Element in Capital Structure"*

(Source: Compiled from the respective studies)

2.5.1 Modigliani and Miller Theory

The modern theory of capital structure commenced with the seminal paper of Modigliani and Miller (1958). The Modigliani and Miller (MM) theory of capital structure is the first generally accepted theory of capital structure. It states that *capital structure has no impact on the value of the firm.* The statement works under the assumptions of a *"perfect market"*. It thereby conveys that a firm operates under a completely free and competitive atmosphere. It is characterized by high information symmetry, tax-free environment and no transaction costs. Therefore, it is not possible to design an optimal capital structure.

Further, MM theory proposed two known propositions based on the assumption that firms operate in a perfect market. According to Proposition I, the firm value is independent of its capital structure. The value of a levered and an unlevered firm is equal in the perfect market. The usage of higher or lower debt in the capital structure of a firm has no significance.

Proposition II further supports Proposition I by stating that the required rate of return by equity shareholders increases if a firm uses a higher debt in its capital structure. This implies that any benefit derived by using debt in the capital structure is balanced by the higher cost of equity. Therefore, capital structure is irrelevant for a firm. This thus laid the foundation for *"theory of irrelevance"*.

From the above discussion, the following inferences can be drawn regarding the development in the field of capital structure:

1. The idealistic assumptions of irrelevancy theory of capital structure compel researchers to rethink in the direction of importance of financing decisions with respect to a firm's value.

2. Emergence of new theoretical models of capital structure of a firm, for example, absence of taxes in irrelevancy theory, gives rise to the trade-off model; information asymmetry in the market gives rise to the concept of pecking order; signalling effect and behavioural aspects of capital structure.

Modigliani and Miller (1963) further introduced corporate taxes in the theory of irrelevance by relaxing the assumption of no taxes. It has been found that advantages of tax inclusion makes debt financing significant for a firm and thereby increases the value of the firm. This clearly outweighs the previous theory and puts forward the concept of tax shield benefits obtained by using debt in capital structure.

Miller (1977) further stated that inclusion of personal taxes of investors apart from corporate taxes will allow a firm to use debt until the marginal investor's personal tax is equal to the corporate tax rate.

2.5.2 Trade-off Theory (TOT)

This theory offers the presence of optimal capital structure. It proposes that a firm will aim to maintain a target debt-to-equity ratio. It thereby evaluates the cost and benefit that arise from the use of debt in the capital structure of a firm (Scott, 1972; Kraus and Litzenberger, 1973; Kim, 1978). An optimal solution is obtained in such a way that both marginal cost and benefits are balanced.

According to Myers (1984), debt will be used in the capital structure by substituting equity until the firm's value is maximized. This implies that there is a trade-off between financial distresses which arises out of the use of debt and financial gains obtained through lower tax deductions (Seifert and Gonenc, 2008). Therefore, firms use debt to gain advantage of tax deductibles. However, excessive use of debt will further lead to the problem of bankruptcy.

Further, Myers (1984) documented that firms set a target debt equity ratio and move towards achieving this. Because the target is not observable, the optimal target ratio is determined by the trade-off between bankruptcy cost and tax benefits of borrowing (Scott, 1976). However, the literature also reports other issues related to TOT, one is the complexity of tax code (Graham, 2003) and nature of the bankruptcy cost (Haugen and Senbet, 1978). Maintenance of target debt equity ratio also faces the problem of transaction cost. This is because marginal cost of

adjustment increases in the case of larger adjustments. There are basically two versions of TOT, namely, static and dynamic TOT.

2.5.2.1 Static Trade-off Theory (STOT)-This supports the existence of an optimal capital structure. It is determined by trading off the costs against the benefits of the use of equity and debt. One of the important predictions of STOT is that firms set their target capital structure. This thereby indicates the use of debt as a substitute for equity. One of the major benefits of using debt is that tax advantage and limitation is associated with financial distress which can probably lead to bankruptcy and firm failure. Therefore, a firm always tries to achieve a target capital structure. If the existing capital structure deviates from the actual one, then a firm tries to adopt such a kind of financing behaviour which will help in achieving the desired debt level.

2.5.2.2 Dynamic Trade-Off Theory (DTOT)-Fischer *et al.* (1989) put forward the DTOT. This puts emphasis on the deviation of debt ratio from the target one, when the cost of adjusting the debt ratio is higher than the cost of maintaining a sub-optimal capital structure. Studies conducted on large firms have proved that firms try to maintain their target debt ratio (Bhaduri, 2002; Bancel and Mitto, 2004; Chakraborty, 2010). Moreover, the advantage offered by debt tax shield is equally important for SMEs as it is for large firms (Zhang, 2010; Mac an Bhaird, 2010).

However, the evidence documented in the literature is indecisive in nature. There are many studies indicating a negative relationship between leverage and profitability of SMEs. This means profitable firms are less inclined towards debt. This is an indication of apprehension to the applicability of TOT on SMEs. This is because credit constraints are major issues faced by SMEs and therefore debt financing has not been readily available to SMEs, Therefore, these firms have been unable to design an optimal capital structure as per the tax advantage offered by the debt. This advocates the major reason behind the inapplicability of TOT to SMEs.

2.5.3 Agency Cost Theory (ACT)

This theory was put forward by Jensen and Meckling (1976). The model is based on *"conflict of interest"*. Research in this area was initiated by Jensen and Meckling (1976). ACT identifies two types of conflicts: one is between the *management and the shareholder* and the other is between *debt holders and equity holders* (Harris and Raviv, 1991). Agency problem is very crucial for financing decisions taken by a firm. In a firm, the agency problem arises due to the following reasons: *free cash flow with firms, asset substitution effect and debt overhang*. The main element of the

theory is the existence of a relationship between investment and financing decision.

Conflict between the management and the shareholder arises majorly due to the problem of free cash flow. Because managers are not the owners of a firm, it is possible they spend the free cash flow available with the firm sub-optimally, which ultimately is not in consensus with maximizing the shareholder's wealth. This thus becomes a source of disagreement between the management and equity holders. To overcome this issue, debt usage is preferred so that availability of free cash flow will get reduced and managers will optimally use the available funds.

Conflict between the shareholder and the bondholder arises due to asset substitution effect and debt overhang. If a firm finances its investment with the use of debt, then shareholders have an incentive to use this fund sub-optimally. This is because if a project generates sufficient cash, then the extra benefit goes to shareholders. Further, due to limited liability, they bear very low cost in case cash flows are less than investment cost and all the loses will be borne by debt holders. This is known as the asset substitution effect.

Debt overhang is a condition of over debt and debt becomes costly for a firm. In the case of debt overhang, debt holders anticipate the earnings of the project and ask for a premium; thus, all the benefits of investment go to debt holders. Therefore, to mitigate this problem, managers invest in projects with a negative net present value. The use of debt also leads to resolution of the issue of bankruptcy to a certain extent, because managers will invest in higher yielding projects; guzzle fewer prerequisites as bankruptcy is a threat for managers.

However, ACT is not directly applicable to SMEs. This is probably because all the major decisions are made by SME owners (Ang *et al.,* 2010). According to Ruan *et al.* (2011), ownership plays a key role in determining the capital structure decisions of SMEs. Although SMEs may not face any agency problems, sometimes when an owner decides to invest in a risky project which further increases the cost for debt holders as compared to the expected return, lenders have to face a higher agency cost. This is because owners get engaged in suboptimal investment to generate a higher return in lieu of higher risk (Jordan *et al.,* 1998; Johnsen and McMahon, 2005). This makes the cost of credit more expensive for small businesses (Barnea *et al.*, 1981). It also increases the transaction costs for SMEs. In fact, agency problems become more severe, when information asymmetry is higher. Therefore, it is expected

that agency costs are higher for small firms because the SME owner/manager is more likely to prefer his interest in the early business stage (Michaleas *et al.*, 1999).

2.5.4 Pecking Order Theory (POT)

It was first propounded by Donaldson in 1961.It was officially reported by Myers and Majluf in 1984.It asserts the empirical fact that firms have a preference for internal funds than for outside funds. If internal funds are not sufficient, the firm may raise external funds through debt or equity to minimize additional cost of asymmetric information. This additional cost is also called *lemon premium* (Akerlof, 1970).

POT does not agree with the concept of optimal capital structure. This model was based on information asymmetry (access to different information). It predicts that investors do not have complete information about a firm and while financing they ask for a premium for the risk of default. Its basic concept arises from the problem of adverse selection (Frank and Goyal, 2005). As per Myers and Majluf (1984) and Myers (1984), a firm follows a hierarchical order to finance new projects. It prefers to use internal funds, then debt and last of all equity. Every firm wishes to maximize its shareholders' wealth and therefore managers do not want to reduce equity holders' share. They always issue overvalued securities. As investors are aware of this, they markdown the value to show adverse selection cost. These costs are always higher for equity; therefore, equity occupies the last place in the hierarchical order of financing preferences. Therefore, POT is a special case of adverse selection (Halov and Heider, 2004). If information asymmetry is related to a firm's value, debt is chosen over equity. However, if it is related to risk, firms prefer to issue equity over debt. So the issue of adverse selection is tedious and the basic idea of POT is preference of internal financing over external financing and in the case of external financing debt is preferred to equity.

Most of the empirical studies on SMEs have advocated the applicability of POT in explaining a firm's financing decisions (Michaleas *et al.*, 1999; Hall *et al.*, 2000; Watson and Wilson, 2002; Vidal and Ugedo, 2005; Daskalakis and Psillaki, 2008; Mateev *et al.*, 2013). However, Odit and Gobardhun (2011) do not support the POT because the negative relationship between profitability and long-term debt is mainly due to the irrational trends observed in profitability. Moreover, because of the financial intertwining of SME owners and their businesses, there is confusion in the use of terms equity and debt (Ang, 1992). Because SMEs do not have access to public

equity, the *"constrained POT*(Holmes and Kent, 1991) and *"modified POT* (Ang, 1991) most appropriately define the theoretical underpinning of the capital structure decisions of Mauritius SMEs.

2.5.5 Market Timing Theory

Baker and Wurgler (2002) were the pioneers of the research on Market Timing Theory. This is one of the most recent theories of capital structure. It provides evidence on the relationship between equity issue and market timing. It states that if the market is overvalued for a stock, it is time to issue equity in the market. Graham and Harvey (2001) surveyed 292 CFOs and found that all were supporting market timing for equity issuance. The major factors that affect equity issues are business cycle, stock returns, extent of asymmetric information (Miglo, 2010). As per the theory, booms in business cycles observe equity financing by firms and positive stock returns also lead to equity issuance by firms and degree of information asymmetry also related to issuance of equity. If any positive information is released about a firm, information asymmetry gets reduced and equity can be issued (Miglo, 2010). However, information asymmetry also affects a firm's incentive to time the market (Chang *et al.*, 2006). MTT argues that firms with low information asymmetry issue less equity, whereas those with high information asymmetry issue more equity. Baker and Wurgler (2002) suggest that market timing has a long-term relationship with capital structure and empirical evidence provided by them supports the negative relationship of leverage with market timing.

2.5.6 Signalling Theory

According to POT, internal funds are used to circumvent issues related to information asymmetry. Any change in the capital structure of a firm does not give any signal about the quality of the firm. However, Ross (1977) documented that capital structure serves as a signal of private information. This is known as "signalling theory" of capital structure and was propounded by Ross in 1977. It states that market reaction on debt issues is positive, whereas market perceives equity issues negatively. Debt issues mean leverage increasing transactions such as issue of convertible debentures and repurchasing shares. According to Miglo (2013), share price announcements are associated with negative sentiments in the market. Leverage increasing transactions also supports Signalling theory (Antweiler and Frank, 2006; Baker *et al.*, 2003). However, the empirical evidence on the amount of straight debt issues does not support Signalling theory (Eckbo, 1986; Antweiler and Frank, 2006).

Signalling theory indicates that equity issuing firms perform better than debt issuing firms. This implies that debt is positively related to profitability. However, the empirical evidence in this regard is highly inconclusive. Many studies have proved that profitability is negatively associated with leverage.

2.5.7 Life Cycle Theory

This theory originates in economics and was propounded by Penrose (1952). The theory describes the growth and development of a firm through various phases of its life cycle. It describes the development and progression of a firm as a linear sequential process through several stages (Mac an Bhaird and Lucey, 2011).The financial lifecycle model also integrates components of financial theories of capital structure like trade-off, agency (Jensen and Meckling, 1976) and pecking order theories (Myers, 1984; Myers and Majluf, 1984). It also illustrates sources of finance usually provided by lenders at each stage of a firm's development. Further, financing needs of firms can be explained by the life cycle model approach (Timmons, 2004). According to this approach, firms mainly depend on internal funds in their early stages of development. The dependence will further shift to external finance due to the enhanced creditworthiness of the firms in the market. Moreover, firms will become more transparent in terms of their financial information. Furthermore, firms will use less debt in the later stages of development because of the use of retained profits for financing investments.

Hussain and Matlay (2007) asserted that the literature lacks studies on the use of various financial resources at different stages of firm's life cycle. Firm financing is a dynamic process and it varies significantly over the course of its life cycle. This approach identifies the type of financing adopted by firms at different stages and also points out the funding gap and highlights the specific financing requirement of firms. It provides an imperative summary of the common trends in firm resourcing across age categories (Mac an Bhaird and Lucey, 2011). The life cycle approach assumes that SME financing is a constant linear process over time. However, it is a more stochastic process. Berger and Udell (1998) depicted that growth cycle of SMEs can be presented in a single universal model, but it should ignore the difference in growth rates along with the availability and accessibility of financial resources.

2.5.8 Behavioural Theory

Conventional theories of capital structure are based on the rationality of investors and market efficiency. Rationality implies that investors opt for investment that yields

higher return under a similar risk and investment that offers minimum risk under a similar return. Market efficiency means that all the securities in the capital market are properly valued. Behavioural finance has been altogether a different point of view. It is opined that an investor's behaviour is not consistent with the assumptions of rationality and market efficiency. Overconfidence, over-optimism, representativeness, conservatism, availability bias, anchoring and regret aversion are some common examples of irrational behaviour.

According to Uckar (2012), there are basically two building blocks of behaviour finance, namely, cognitive psychology and the limits to arbitrage. Capital structure decisions are mainly made by owners or managers of a firm and irrational managers are subject to behavioural biases. For example, overoptimistic managers overestimate cash flows and underestimate expenditures to be incurred by the firm in the future. This may lead to the selection of a sub-optimal investment and thereby affects the choice of financial resources chosen for financing the investment. Sometimes, managers choose debt for financing a project which may lead to the issue of financial distress, if the project is over-valued.

Therefore, behavioural aspects of managers will certainly have an impact on the capital structure decisions of a firm, and therefore, behavioural elements provide a scope for research in the financing decisions of a firm.

2.6. EMPIRICAL STUDIES ON CAPITAL STRUCTURE

Empirical studies on capital structure that followed theoretical studies form a large body of the literature. Empirical research on financing decisions of firms started appearing in the 1980s (Bradley *et al.*, 1984; Taggart, 1986; Titman and Wessels, 1988) and was mostly based on large firms in developed countries (Titman and Wessels, 1988; Harris and Raviv, 1991; Rajan and Zingales, 1995; Shyam-Sunder and Myers, 1999; Graham and Harvey, 2001; Bevan and Danbolt, 2000; Bancel and Mitto, 2004; Hall *et al.*, 2004). Capital structure is among the most debatable issues in finance. Financial theories have proposed that capital structure is chosen based on different variables that determine cost and benefits associated with it. Theoretical work in this field forms the basis of empirical research because most of the variables are abstract in nature (Titman and Wessels, 1988). Earlier empirical research focused on the static nature of financing decisions and successfully established many stylized facts about capital structure decisions (Bevan and Danbolt, 2000). Therefore, the abovementioned studies strongly support the dynamism involved financing decisions

made by firms. All the studies are mainly centered on developed markets. Literature documents fewer capital structure studies performed on the emerging markets as compared to studies conducted on mature markets (Booth *et al.,* 2001; Pandey *et al.,* 2001; Chen, 2004; Colombage, 2007; Foster and Young, 2013).

Studies conducted on determinants of capital structure are limited and mainly focused on large firms in India.

Table 2.7 Studies on Determinants of Capital Structure in India

This table presents the empirical studies exclusively conducted on Indian firms.

S.No.	Author(s)	Year	N	Methodology
1	Booth *et al.*	2001	99	Static Panel Regression
2	Bhaduri	2002	363	Partial Adjustment Model and Factor Analysis
3	Madan	2007	8	Descriptive Analysis
4	Kaur and Rao	2009	78	Step Wise Regression
5	Chakraborty	2010	1169	GMM
6	Pathak	2010	135	OLS
7	Mukherjee and Mahakud	2010	891	GMM
8	Chakrborty	2011	875	GMM
9	Agarwal *et al.*	2011	500	Goal Programming Model
10	Fan *et al.*	2012	67	GMM
11	Allen *et al.*	2012	2365	OLS and 2 SLS
12	Foster and Young	2013	202	Static Panel Regression
13	Thomas	2013	21	Ratio Analysis
14	Ganguli	2013	100	Static Panel Regression
15	Handoo and Sharma	2014	870	Static Panel Regression

(where N: number of firms; GMM= Generalized Method of Moments; OLS=Ordinary Least Square;2SLS=Two Step Least Square)

Table 2.7 presents the list of studies performed on the determinants of capital structure in India. The table indicates that research on the factors driving the capital structure decision of firms is an emerging area. The studies are primarily concentrated during the period 2010-2014. Panel data regression is the most frequently applied technique in the area of capital structure decisions.

Globalization has opened the door to trade among different countries. Because mature markets are saturated, emerging economies provide new markets to the developed economies and have tremendous potential in terms of investment and growth.

Moreover, capital markets are underdeveloped in these economies and thus provide more scope to gauge the area of the financing decisions of a firm.

A prudent examination of the literature reveals that there are only limited studies on the capital structure of SMEs as compared to those on large firms. Most of the studies on the capital structure determinants of SMEs are based in Europe (Hall *et al.,* 2004; Sogorb-Mira, 2005; Ortqvist *et al.,* 2006; Lopez- Gracia and Sogorb–Mira, 2008; Daskalakis and Psillaki, 2008; Mac an Bhaird and Lucey, 2010; Zhang, 2010; Serrasqueiro, 2011; Serrasqueiro and Nunes, 2012; Mateev *et al.*, 2013). The literature survey identified only a limited number of studies on determinants of the capital structure of SMEs in emerging economies (Zabiri, 2013; Nguyen and Ramachandran, 2006; Dogra and Gupta, 2009) and most of the studies are empirical and restricted mainly to developed countries.

2.6.1 Empirical Evidence on SMEs

Capital structure is the outcome of financing decisions made by firms. The determination of the capital structure of a firm has been the most debatable issue in the literature on finance. The empirical studies performed on the identification of major factors responsible for the financing decisions of a firm revealed that assessment of the capital structure of a firm is inconclusive (Harris and Raviv, 1991). Further, financing decisions of SMEs principally differ from those of large firms because large firms have an easy access to financial resources as compared to small firms due to information transparency and high credibility in the market (Bas *et al.*, 2009).

Moreover, the literature of empirical research on the determinants of capital structure also supports the dominance of studies mainly on large firms (Rajan and Zingales, 1995; Booth *et al.*, 2001; Chakraborty, 2010; Handoo and Sharma, 2014) and one cannot generalize the results obtained from previous studies conducted on large firms for SMEs. Further, larger firms are not solely governed by the decision of major shareholders, whereas for SME financing depends on the owner's decision. Furthermore, small firms rely heavily on short-term debts as compared to large firms which visibly make the financing of SMEs different from that of large firms (Allen *et al.,* 2012). Hence, the present study fulfils the dire need of examining the factors governing the financing decisions of SMEs in India. This study also bridges the gap of the limited research on capital structure determinants of SMEs in India and thereby justifies the necessity of conducting extensive research in this field.

Empirical studies exclusively on determinants of the capital structure of SMEs show the dominance of POT (Daskalakis and Psillaki, 2008; Beck and Demirguc-Kunt, 2008; Degryse *et al.,* 2012; Hall *et al.,* 2000; Serrasqueiro, 2011; Watson and Wilson, 2002; Mateev *et al.,* 2013) and little evidence of TOT (Amo Yartey, 2011; Zhang, 2010) and ACT (Lappalainen and Niskanen, 2012; Abor, 2007; Kyereboah-Coleman, 2007). This indicates the risk-aversive nature of risky ventures (SMEs).

2.7 DETERMINANTS OF CAPITAL STRUCTURE OF SMEs

Capital structure theories form the foundation of empirical research conducted on the financing decisions of firms. The literature of empirical research on financing decisions of SMEs is relatively less as compared to their large counterparts. However, the last decade experienced a growing interest of researchers in this particular field. Financing decisions of SMEs are noticeably different from those of large firms because small firms tend to focus more on short-term debt finance and debt financing is largely governed by the asset structure and growth of SMEs (Odit and Gobardhun, 2011). Odit and Gobardhun (2011) also studied the impact of firm- specific variables on short- and long-term debt and thereby conclude that SMEs in Mauritius follow the asset matching principle because these firms finance their fixed assets with long-term debt and current assets with short-term debt. This suggests modified pecking order theory (MPOT) for SME financing.

However, arguments of POT are favourable for SMEs because SMEs generally face credit constraints in the market and are bound to use internal funds for their funding as compared to other financial resources (Mateev *et al.,* 2013). SMEs use profit to lower the burden of debt (Degryse *et al.*, 2010) and thereby prefer internal funds to external funds. Forte *et al.* (2013) also supported the notion of POT and showed that profitability exhibits a negative relationship with leverage for Brazillian SMEs. Contrary to the aforementioned studies, Amo Yartey (2011) supported the importance of external debt for Ghanaian SMEs. Short-term debt is preferred to internal funds for financing the growth of a firm. However, the use of short-term debt also makes SMEs more susceptible to turbulent economic conditions. Benkariem and Gurau (2013) also placed emphasis on the greater use of short-term debt by SMEs. This is mainly due to the control aversive attitude of SME owners which stops them from selecting other financial resources that could possibly dilute the control or increase the risk of financial distress.

Further, Serrasquiero and Nunes (2012) interpreted that POT and TOT are not mutually exclusive to each other; in fact, these theories must be studied independently in the context of SMEs so as to have a more elaborate understanding of the capital structure of SMEs throughout their survival. The study basically places emphasis on the age of SMEs and puts forward the essentiality of retained earnings over borrowings for young SMEs.

The recent empirical literature on determinants of SMEs also focuses on industry effects. Studies such as Abor (2007), Degryse *et al.* (2012) and Serrasquiero (2011) have documented the heterogeneity in leverage levels across industries. Abor (2007) demonstrated that information and communication, wholesale and retail industries of service sector are more likely to use short-term debt than manufacturing SMEs. This clearly marks the difference in the leverage decisions of manufacturing and service SMEs.

Based on the literature review, this section illustrates the capital structure determinants of SMEs. Capital structure decisions are inconclusive (Harris and Raviv, 1991). The empirical literature also attests this fact by examining the relationship between determinants of capital structure with different measures of leverage. Table 2.8 illustrates the list and frequency of explanatory variables studied by various authors working on the capital structure of SMEs. It is evident that profitability, tangibility, growth, age and size are the most frequently examined variables among SMEs. Moreover, a few studies have also examined the effect of liquidity and non-debt tax shield on capital structure decision of SMEs. However, cash flow has been the least investigated variable. This may be because of the unavailability of financial information of SMEs. It is also interesting to note that the academic literature is almost silent on the effect of firm-specific variables on leverage of SMEs in India.

Table 2.8 Previous Studies on Determinants of Capital Structure of SMEs

This table summarizes the major determinants of capital structure in the earlier the empirical studies explicitly conducted on SMEs.

Author (s)	Year	PROF	GR	TANG	LIQ	SIZE	AGE	CF	NDTS
Michaelas *et al.*	1999	√	√	√		√	√		√
Hall *et al.*	2000	√	√	√		√	√		
Cassar and Holmes	2003	√		√		√			
Hall *et al.*	2004	√	√	√		√	√		
Sogorb-Mira	2005	√	√	√		√			√

Author (s)	Year	PROF	GR	TANG	LIQ	SIZE	AGE	CF	NDTS
Örtqvist *et al.*	2006	√	√	√		√			
Abor	2007	√	√	√		√	√		
Lopez-Gracia and Sogorb-Mira	2008	√	√			√			√
Daskalakis and Psillaki	2008	√	√	√		√			
Abor and Biekpe	2009	√	√	√		√	√		
Psillaki and Daskalakis	2009	√	√	√		√			
Mac An Bhaird and Lucey	2010					√	√		
Zhang	2010	√	√	√			√		
Odit and Gobardhun	2011	√	√	√		√	√		
Amo Yartey	2011	√	√	√		√			
Moosa *et al.*	2011	√	√	√	√		√		
Serrasqueiro	2011	√	√	√		√	√		√
Degryse *et al.*	2012	√	√	√			√		
Sbeti and Moosa	2012	√	√	√	√		√		
Forte *et al.*	2013	√	√	√		√	√		
Benkraiem and Gurau	2013	√	√	√		√			
Mateev *et al.*	2013	√		√	√	√		√	

√ indicates the frequency of explanatory variable studied by various author(s); PROF=Profitability; GR=Growth; TANG=Tangibility; LIQ=Liquidity; CF=Cash Flows; NDTS=Non Debt Tax shield

Therefore, the current study attempts to examine the association of firm-specific variables with different measures of leverage. The prime predictor variables of the current study are profitability, asset structure, growth, size, age, liquidity, non-debt tax shield and operating cash flow. This section gives the details of firm-specific variables used in this study.

2.7.1 Profitability

It is one of the most significant predictor variable used in various empirical studies of capital structure. Theoretical underpinning of capital structure decisions documented the indecisive relationship of profitability with the measures of leverage. According to TOT, profitable firms have an advantage in procuring debt; thereby these firms design their capital structure in accordance with the advantages obtained from tax shield. These firms attempt to achieve an optimal capital structure. TOT supports the fact that high profitability resorts to higher inclusion of debt in the capital structure of firms. On the contrary, POT allows the hierarchical flow of funds as per the exhaustion of

available resources. It states that profitable firms do not use external financial resources in their financial mix.

The majority of the studies have reported that capital structure is negatively related to the profitability of firms (Rajan and Zingales, 1995; Chen, 2004; Shyam-Sunder and Myers, 1999; Booth *et al.,* 2001). Due to stability in their earnings, profitable firms rely less on external funding and depend on internal funds for their investment and growth, which is in line with POT. The other possible rationale behind this could be the avoidance of conflicts between shareholders and lenders that can arise because of the asset substitution effect. In line with the TOT of capital structure, Harris and Raviv (1991), Frank and Goyal (2003), Ajmi *et al.* (2009), Kaur and Rao (2009), Nunkoo and Boateng (2010), and Zhang (2010) provide empirical evidence against the positive relationship between profitability and capital structure. This suggests that profitable firms can absorb a large amount of interest payments and provide a tax shield arising out of a high debt ratio, which is not the case for less profitable firms.

Moreover, profitability is assumed to be negatively related to leverage. This in fact is true in the case of small firms because these firms have less access to external funds and rely more on internally generated funds. Cressy and Olofsson (1997) encountered that SMEs show evidence of control aversion. This is demonstrated by a preference to sell the firm rather than relinquishing equity (Bayrakdaroglu *et al.*, 2013). It is also described by the fact that owners prefer internal resources to finance further investment and otherwise they would likely go for debt financing. This clearly indicates evidence in support of POT. The previous studies performed on SMEs also predict the negative relationship between leverage and profitability (Michaleas *et al.,* 1999; Cassar and Holmes, 2003; Sogorb-Mira, 2005).

2.7.2 Firm Size

Firm size has been considered as an important determinant of capital structure decisions. Large firms tend to be more diversified and therefore have fewer variations in earnings and can withstand high leverage ratios (Titman and Wessels, 1988; Wald, 1999).TOT also assumes that there is a positive relationship between leverage and firm size, because larger firms have easy access to debt and they are perceived to be less risky than small firms. Moreover, SMEs generally face problems in obtaining debt from outsiders due to information asymmetry (Michaleas *et al.*, 1999; Sogorb-Mira, 2005; Ngyuen and Ramachandran, 2006; Antoniou *et al.*, 2008; Ajmi *et al.*,

2009; Bevan and Danbolt, 2000; Crnigoj and Mramor, 2009; Pathak, 2010; Zhang, 2010; Sheikh and Wang, 2010). The negative relationship between leverage and firm size is in line with the assumptions of POT (Titman and Wessels, 1988; Hall et al., 2004; Chakraborty, 2010). Larger firms seem to be more transparent in sharing information with outsiders and hence issue more equity as compared to debt (Rajan and Zingales, 1995).

2.7.3 Firm Age

It is also significant predictor in explaining capital structure decisions. This is because older firms are able to accumulate funds and probably the need for borrowing is less as compared to that of younger firms. New and young firms have less time to gather retained earnings and are therefore compelled to borrow from outside (Hall *et al.*, 2004). However, younger firms have a high preference for financing through internally generated funds and short-term debt (Watson and Wilson, 2010). This is because new firms do not have any previous credit history, and therefore, financiers are susceptible in lending to these firms. Therefore, their dependence is quite high for short-term debt and owner's funds. POT suggests a negative relationship of leverage with age. Peterson and Rajan (1994) also discussed the effect of age on relationship lending. Because a firm spends more time in building a relationship with financial institutions like banks, the chances of easy accessibility of funds becomes higher and this thereby reduces the cost of credit.

2.7.4 Non-Debt Tax Shield (NDTS)

According to DeAngelo and Masulis (1980), the presence of NDTS affects the optimal capital structure of firms. Interest expenses are not the only variable for reducing taxes. The presence of NDTS such as depreciation and amortization, research and development expenses, investment tax credits also affect capital structure decisions. Firms also try to reduce their tax burden through NDTS instead of using debt. This helps them in reducing the cost of financial distress, adjustment costs and switching costs (Dammon and Senbet, 1988).

NDTS is specifically important for SMEs because in some countries NDTS receives special treatment in the tax code. Pettit and Singer (1985) stated the importance of NDTS for SMEs They argued that SMEs are less profitable than large firms and are less likely to get the tax shield from the use of debt. Moreover, higher use of debt can increase the risk of bankruptcy for these firms. Michaleas *et al.*

(1999), Sogorb-Mira (2005) and Lopez-Gracia and Sogorb-Mira (2008) have documented a negative relationship of NDTS with leverage for SMEs.

2.7.5 Liquidity

It is the ability of a firm to meet its short-term obligations. SMEs usually use a higher proportion of current liabilities in their capital structure as compared to large firms (Mateev *et al.*, 2013). Liquidity is necessary to maintain the growth of a firm. Therefore, SMEs having higher growth opportunities have higher liquidity and thus have a lower debt in their financial structure. However, a higher debt indicates a low level of liquidity and thereby predicates a negative relationship between liquidity and leverage. Empirical evidence on the inverse association of leverage with profitability was examined by Moosa *et al*. (2011), Sebti and Moosa (2012) and Mateev *et al.* (2013)**.**

2.7.6 Tangibility

It is also one of the most common and important explanatory variable in the capital structure decisions of SMEs. It describes the level of fixed assets such as land, building and machinery (Hall *et al.*, 2000). Procuring debt with the collateral reduces the issues of adverse selection and information asymmetry. It also reduces the chances of moral hazards faced by financiers while lending to SMEs (Stiglitz and Weiss, 1981). It is common for lenders to require collateral while sanctioning loans to firms (Binks *et al.*, 1988).Therefore, firms having a high level of fixed assets are more likely to get external finance as compared to those firms with less fixed assets. Moreover, requirements of assets also depend on the type of funding needed.

2.7.7 Growth Opportunities

Growth is likely to put a strain in retained earnings and therefore pushes firms towards external borrowing (Hall *et al.,* 2004). However, growth opportunities can create moral hazard situations, and owners are more likely to take benefits arising out of it. Myers (1977) also argued that conflict between shareholders and debt holders arises due to the suboptimal investment of shareholders in a project. It will benefit shareholders at the expense of debt holders. Therefore, the assets that provide the firm a chance to undertake risky growth opportunities in the future have been exposed to such kind of conflicts. Here, the projects have not been financed by long-term debt. Therefore, the firm experiences a negative relationship of growth with gearing ratio. However, SMEs mainly depend on short-term debt for their funding. This mitigates the problem of agency cost (Myers, 1977). It implies that short-term debt may be

positively related to growth, if a firm chooses to finance its assets with short-term funding. This argument is much more favourable in the context of SMEs because dependency of SMEs is more on short-term funding.

2.7.8 Operating Cash Flows

Mateev *et al.* (2013) studied cash flow as a prime explanatory variable for SME financing. The negative effect of cash flow on short-term debt supports the assumptions of POT. Firms with regular and sufficient cash flows have adequate internal funds and therefore are less dependent on external sources of funds. However, the results do not confirm the assumptions of POT with long-term debt. This clearly signifies that long-term borrowings do not depend on the availability of cash flows. Honjo and Harada (2006) also documented the positive impact of cash flows on the growth of young manufacturing SMEs in Japan. However, the empirical evidence on the relationship of leverage with cash flows is limited for small firms. However, the relationship has been extensively studied for large firms. Karadeniz *et al.* (2008) have also predicted a negative association of leverage with cash flows. Further, TOT predicts a positive relationship of leverage with cash flows (Benito, 2003; Jensen,1986; Stulz, 1990).Higher cash flows ascertain higher chances of procuring debt by the organization.

In the present study, we have made an effort to determine the most important firm-specific factors that affect the financing of SMEs. We wished to establish the importance of firm-specific factors and how their relationship with leverage affects the financing decisions of SMEs. The previously studied variables affecting the leverage of a firm are profitability, tangibility, size, age, growth, liquidity, operating cash flow and non-debt tax shield. Moreover, the various capital structure theories discussed above have also made their justifications in the context of these variables. The determinants of financing decisions were studied to know the possible reasons behind the current capital structure of the firm. In other words, the analysis was done to explore the important and significant firm-specific factors responsible for the financing decisions of a firm.

2.8 EFFECT OF MANAGERIAL ASPECTS ON FINANCING DECISIONS

The financing decisions of SMEs are largely governed by the attitudes and characteristics of managers and owners. In the case of SMEs, the attributes of owners/managers have a greater influence on financing decisions than in large firms with dispersed ownership and control. Firm-specific determinants identified by capital

structure theories could not adequately explain the capital structure decisions of SMEs in emerging economies because market constraints faced by small firms have violated many assumptions underlying these financial theories.

Auken (2005) introduced a model that explains the dynamics of the capital structure decisions of SMEs and pointed out the significance of managers'/owners' attitudes and characteristics. It includes many managerial factors, such as experience, growth intentions, and preference for growth and relationships, which may influence capital structure decisions. Borgia and Newman (2012) also explained the relationship among managerial attitude, characteristics and total leverage by controlling firm-specific variables and found that greater risk propensity allows managers to use more debt. Risk propensity and aversion to external control are significant managerial attributes in deciding the capital structure of SMEs (Abor, 2008; Watson *et al.,* 2009). Managerial skills and characteristics have a strong influence on lenders, and they exert a significant impact on borrowers' loan-taking ability (Grunert and Norden, 2012). All these studies signify the importance of qualitative variables in capital structure decisions, especially for SMEs. According to Van Caneghem and Van Campenhout (2012), both quality and quantity of information are important in deciding the financial structure of a firm.

Firm financing decisions are dynamic in nature and changes are quite obvious as the firm continues to grow. Berger and Udell (1998) also confirmed that financing requirements and financial options vary as per the age of the firm. Newly established ventures lack creditworthiness (Cassar, 2004), these are informationally opaque (Berger and Udell, 1998) and are prone to a high risk of failure (Huyghebaert and Van de Gucht, 2007). Therefore, start-ups are more dependent on internal financial resources, specifically owner's fund and personal assets.

In progressing forward, SMEs establish their creditworthiness in the market and thereby attract the interest of lenders in providing financial assistance to them. Apart from this, growing firms are able to provide bankable collateral and have become more familiar with market requirements. Lenders may be banks, financial institutions, money lenders or they may be venture capitalists and other financial firms in the market, etc. Therefore, the life cycle approach of financing seems to justify the financing pattern of SMEs. Various empirical studies including Kimhi (1997), Wu *et al*. (2008) and La Rocca *et al.* (2011) have also selected the life cycle approach for understanding the financing of SMEs.

However, SME financing cannot be studied only on the basis of the life cycle approach and other financial theories. Berger and Udell (1988) argued that life cycle theory of financing is not applicable to all SMEs operating in different industries. A firm's age is not at all a wholesome criterion of understanding the financing behaviour of SMEs. Moreover, SME financing cannot be generalized, and therefore, different approaches have been suggested by several authors. However, the effect of firm and owner/manager characteristics is undoubtedly certain on the financing decision of SMEs (Abdulsaleh and Worthington, 2013).

Further, earlier studies have also documented the fact that capital structure theories do not appropriately justify the financing behaviour of SMEs in developing economies (Borgia and Newman, 2012). Managerial theories are more efficient in explaining the capital structure of SMEs as compared to conventional financing theories (Hackbarth, 2008; Ang *et al.*, 2010; Ruan *et al.*, 2011). Further, there is no distinction between ownership and control in small firms and most of the decisions are taken solely by owners and individual demographic features of owners visibly explain the capital structure of small firms (Ang *et al.*, 2010). It implies that owners play a pivotal role in deciding the requisite financing for SMEs. This is probably because the investment of owners mainly adheres to the business only and personal assets are also frequently used to procure funds from the market. The fund is then invested in the firms, and therefore, if the performance of the business is not in accordance with the expectations, chances of personal financial distress become more obvious.

Ruan *et al.* (2011) also proved that managerial ownership steers the capital structure into a nonlinear shape. It further states that managerial ownership affects the capital structure and thereby affects the firm value. Therefore, ownership plays a key role in determining the capital structure decisions of SMEs. It implies that the study of owners' characteristics is imperative for understanding the financing decisions of SMEs. This section entails the details of owner-specific characteristics and the effect of owner's attributes on firm financing decisions.

Unequivocally, there is a strong connection between availability of external finance and growth of SMEs. According to Hutchinson (1995), *"there may be major barriers preventing an owner-manager's access to equity".* Watson and Newby (2009) pointed out that most of the research on SME financing has focused on supply side issues. Further, Barrett (2006) recommended the future research on demand side

issues of SME financing where the existing empirical evidence is far more limited. Hamilton and Fox (1998) argued that debt levels in small firms *"reflect a demand-side preference ordering and are not just the manifestation of supply-side deficiencies"*. This clearly implies that observed variations in the financing decisions of SMEs may be the result of personal characteristics of owners rather than the deficiencies in lending institutions. Therefore, the present study incorporates the effect of owner/manager characteristics on financing decisions of SMEs. The main attributes are gender, age, education, experience and ownership.

2.8.1 Gender

According to Verheul and Thurik (2001), the financing decisions of male owned SMEs are different from those of female owned SMEs. They also classified the impact of gender into *direct and indirect effects*. The direct effect is known as *'gender effect'*, whereas the indirect effect is referred to as *'female profile'*. The *gender effect* clearly states that the financing decisions of male and female owned SMEs are not similar despite the fact that they share similar characteristics. The *female profile* documents the presence of a difference due to diversity in business type, management and experience.

The most plausible reasons that affect the financing decisions of SMEs are the desire to maintain control and avoidance of probable risk. Treichel and Scott (2006) contemplated that women owners limit the frequency and size of their loan application due to the concerns of control dilution in their business. Watson *et al.* (2009) documented that female SME owners have sufficient funds and they do not require further funding for their business. This clearly indicates the fact that women owners have a strong desire to maintain control over their business and do not prefer finance from external resources. Further, studies have also supported the fact that acquiring external funds is difficult for female owners (Brush *et al.*, 2001; Cartel and Rosa, 1998). This is mainly due to structural dissimilarities between male and female owners, demand for funding and gender discrimination. Eriksson *et al.* (2009) found that female owners are more likely to choose funding from the existing owners of the firm.

Women owners are more risk aversive than are men owners. This is also one of the significant reasons reported in the literature for explaining differences of financing behaviour of SMEs (Olsen and Cox, 2001; Verheul and Thurik, 2001; Eckel and

Grossman, 2002; Watson, 2006). Female owners are also less concerned about financial rewards than are male owners (Brush, 1992; Rosa *et al.*, 1999).

Further, Eriksson *et al.* (2009) also documented that there is no difference in the usage of bank loans by male and female owners. Cassar (2004) found no significant difference between the gender of decision makers and their financing preferences. Hussain *et al.* (2010) also reported no significant difference based on an exploratory study conducted on SME financing in China. Similarly, Coleman (2000) and Irwin and Scott (2010) documented that gender has no influence on an SME's access to external finance. As the literature reports inconclusive results, it becomes necessary to study the effect of gender on SME financing decisions in India.

2.7.8 Age of Respondents

Briozzo and Vigier (2009) stated that *"As the firm and its owner grow older, information asymmetries decrease, granting easier access to debt (a supply-side effect), while the owner's risk aversion and personal costs of bankruptcy increase with age, and thus he or she desires to use less leverage (demand side effect)".* Romano *et al.* (2001) examined the effect of owner's/manager's age on financing decisions of SMEs and reported that older owners are less likely to invest additional finance in their firms as compared to young entrepreneurs. The results are in line with the findings of Vanderwijst (1989) who advocated the reluctance of older entrepreneurs in using external equity in their financial structure. Vos *et al.* (2007) documented a higher reliance of older entrepreneurs on internal financing, whereas younger entrepreneurs resort more to short-term financing such as bank overdraft, cash credit, credit cards, funds from family friends and relatives and personal savings. Wu *et al.* (2008) also reported a significant association between the owner's age and firm financing. On the contrary, Cassar (2004) and Buferna *et al.* (2005) did not find any statistically significant relationship between the owner's/manager's age and financing decisions of firms.

2.8.3 Education

Owner's education is also a vital factor in illustrating the financing decision of a firm (Watson, 2006; Haileselasie Gebru, 2009). This indicates the quality of human capital possessed by firms (Cassar, 2004; Borgia and Newman, 2012).Coleman and Cohn (2000) documented that highly educated entrepreneurs have more debt in their capital structure. Storey (1994) asserted that entrepreneurs having a higher educational background exhibit greater confidence in dealing with financiers for the sanctioning

of loans .Education is also found to be an only statistically significant variable among the personal characteristics of owners/managers(Storey, 1994).

Owners/managers having formal and higher education are more inclined towards debt and formal financing (Zhang, 2008; Wu *et al.,* 2008). Haileselasie Gebru (2009) documented that less educated SME owners exhibit more dependence on internal financing despite the availability and accessibility of external financial resources. On the contrary, highly educated owners prefer external sources of finance to internal resources. However, Vos *et al.* (2007) reported that less educated owners show more preference for external financial resources, whereas more educated owners exhibit a higher usage of internal resources.

Further, there is empirical evidence that exhibits an insignificant relationship between education level of owners/ managers and financial leverage (Cassar, 2004; Buferna, 2005; Borgia and Newman, 2012). Unequivocally, education also helps in largely diminishing the financing barriers faced by the SME owners (Irwin and Scott, 2010).

2.8.4 Experience

Creditworthiness is one of the main factors that support convenient lending. Experience of the firm's owner plays an imperative role in enhancing the creditworthiness of a firm (Cole, 1998). Zhang (2008) also supported experience as a determinant of reputation of a firm and owners with high experience have been able to access formal financing more easily as compared to owners having relatively less experience. The association of bank financing with higher experience has also been reported by Wu *et al.* (2008). This implies that inadequate supply of external finance to SMEs is primarily due to the low experience of the firm's owner (Nofsinger and Wang, 2011).The owner's experience also helps in reducing concerns related to information asymmetry and moral hazard problems. Gompers *et al.* (2008) also supported experience as a significant variable in determining the credibility of owners by financiers. Their findings revealed that experienced owners are more successful than novice entrepreneurs. Borgia and Newman (2012) also found a significant positive relationship between an owner's experience and leverage. However, researchers have also reported a positive yet insignificant relationship between owner's experience and use of debt (Buferna *et al.*, 2005; Watson, 2006; Sena *et al.*, 2012).

2.8.5 Ownership Type and Structure

The financing decisions of a firm are highly influenced by the perception and preferences of the business owner (Michaleas *et al.*, 1998). Further, the involvement of a business owner is extremely high in the case of SMEs. The concentrated ownership is a peculiar feature of SMEs. It makes ownership a significant variable in explaining the financing decisions taken by firms in general and SMEs in particular.

Mac an Bhaird and Lucey (2006) reported a negative association of ownership with external equity and a positive relationship with internal equity financing. Further, while predicting the future financing model for firms, ownership structure was found to be statistically significant by Osei-Assibey *et al.* (2010). It has been reported that firms preferred formal financing to minimize the intrusion into business decisions as compared to equity financing. However, Cassar (2004) did not find any significant relationship between ownership structure and form of financing opted by a firm.

Coleman and Cohn (2000) revealed that organizational structure is positively related to the leverage of SMEs. Abor (2008) also supported the argument by identifying form of business as a significant variable in describing the financing decision of SMEs operating in Ghana. Further, ownership structure also has a significant effect on bootstrap capital (Van Auken and Neeley, 1996). Financing practices of SMEs have been greatly affected by the non separation of ownership and control in SMEs (Petty and Bygrave, 1993). Furthermore, financiers and lenders have considered incorporated firms to be more organized and credible (Cassar, 2004). This implies a higher probability of receiving external finance by registered firms. Moreover, private limited firms also have a higher reliance on bank financing (Storey, 1994).

The description of owner's attribute illustrates the significance and necessity of studying these variables. Moreover, the academic literature on owner/manager attributes on financing preference of SMEs is relatively scarce; thereby, it motivates and justifies the examination of these basic characteristics on the firm financing behaviour of SMEs.

2.9 EFFECT OF MACROECONOMIC VARIABLES ON FINANCING DECISIONS

Capital structure decisions are highly inconclusive (Harris and Raviv, 1991). Many empirical studies conducted on capital structure decisions of SMEs have reported that financial theories are insufficient to support the capital structure decisions of firms

(Norvaisiene and Stankeviciene, 2007). Further, Frank and Goyal (2000) reported that internal factors determine only 30% variation in the capital structure of firms. This implies the presence of other variables that further describe the differences in the capital structure decisions of a firm.

The predictability of financing decisions becomes more complex in the case of small firms. According to Levine (2005), a highly developed financial system eases the financial constraints for operating firms. Levy (2001) assumed that macroeconomic conditions are responsible for the financing choice of a firm. Macroeconomic variables such as GDP growth rate, inflation rate and interest rate have an influence on the debt available to SMEs (Lee *et al.*, 2010). Michaleas *et al.* (1999) depicted a positive relationship between economic growth and long-term debt and negative association of short-term debt with economic growth. This implies that time varying effects are important in explaining capital structure decisions. However, these factors are mainly studied on developing economies. Jong *et al.* (2007) also asserted the positive impact of GDP growth rate on the capital structure decisions of firms. Homaifar *et al.* (1994) explained that inflation rate has a positive effect on leverage because it lowers the real cost of debt through repayment. However, Booth *et al.* (2001) and Fan *et al.* (2006) did not report any significant association between interest rate and debt. Colombage (2007) also asserted that interest and tax consideration have a higher influence on the accessibility of external funds from the market.

Terra (2007) also examined the effect of macro-economic variables on the financing decisions of firms. The findings indicate that though these factors have an imperative effect on the capital structure decisions, these factors do not have any decisive effect on the financial structure of a firm. This clearly indicates the indirect effect of macroeconomic variables (Bastos *et al.*, 2009). Salehi and Maneesh (2012) also supported the indirect influence of macroeconomic variables on the capital structure of firms. Therefore, it is necessary to study the effect of macroeconomic variables on the financing decisions of SMEs.

2.10 MOTIVATION AND JUSTIFICATION FOR THE STUDY

While reviewing the literature, an attempt was made to unearth the explicit and implicit gaps in the existing literature. The following gaps were identified in the literature, which serves as a strong base for undertaking the present study:

1. Empirical studies depict the dominance of capital structure literature in developed countries. The body of knowledge covering developing, especially, emerging markets is very limited. However, recently, studies on emerging markets are gaining popularity, because the capital and stock markets in these markets, according to Eldomiaty (2007), are relatively less efficient and incomplete than in the developed markets. This causes financing decisions to be incomplete and subject to irregularities. This feature makes emerging markets interesting and provides a scope for performing research on the capital structure of firms in emerging economies.

2. SMEs are one of the major contributors of growth in developing countries. The SME sector is the second largest employment provider after agriculture in the Indian economy and contributes largely to the manufacturing and export sector. Studies on capital structure decisions have predominantly been conducted on large-scale industries and are scant for small firms in India. Further, only a limited number of studies on SMEs operating in India are focussing on determinants of SMEs and problems faced by them in obtaining finance. There is a dearth of literature on financing preferences of SMEs in India. Therefore, a study can be undertaken to bridge these gaps and provide insightful knowledge on the capital structure of SMEs.

3. A review of the literature indicates a relationship between managerial characteristics (age, education, experience and gender) and financing preferences among firms. Most of the work on managerial characteristics and financing preferences is limited to SMEs operating in developed and a few developing economies. Therefore, it is important to study the influence of managerial attributes in deciding the financing preferences of SMEs operating in India, and this will contribute to the literature.

4. A careful review of the literature points out mixed evidence about the determinants of capital structure. The direction and significance of the relationship between capital structure determinants and leverage change when applied in different environments. It has been documented that capital structure decisions are inconclusive (Harris and Raviv, 1991). Further, conclusions drawn from previous work are based on studies on large firms and mainly on firms operating in developed markets. The present study aims to

solve the *"puzzle"* of capital structure by providing empirical evidence about the specific determinants of the capital structure of Indian SMEs.

5. Capital structure decisions cannot be studied with the help of quantitative data alone. The financing preferences of SMEs can be explained only by integrating both quantitative and qualitative factors. Most of the studies on capital structure are based on archival research, and very few studies are based on the survey method. More specifically, there is no study using the mixed method approach in analysing the financing preferences of SMEs operating in India. Thus, a study can be undertaken by using the mixed method approach to obtain a detailed insight into financing decisions made by SMEs and contribute to the literature.

6. The literature survey has also documented the limited number of academic studies on the financing preferences of SMEs for the various available sources of finance. This provides an opportunity to study and to locate modern forms of finance for SMEs other than the traditional sources.

2.10.1 Research Questions

On the basis of extensive review of theoretical, empirical and contextual literature of SMEs, the aforementioned research gaps have been identified and thereby have further helped in designing the research questions for the present study. The present study has examined following research questions given below-

1. What are the various financing preferences of SMEs?
2. Is there any significant difference between managers'/owners' financing preferences and the current sources of finance chosen by SMEs?
3. Is there any significant association between managers'/owners' attributes and financing preferences of managers towards different sources of finance?
4. What are the major determinants of the capital structure of SMEs and which theory of capital structure explain the existing financing mix of SMEs?

2.11 CONCLUSION

This chapter describes the literature pertaining to SMEs. It is developed on the lines of contextual, theoretical and empirical literature available on SMEs.

The contextual background is explained with the discussion of the economic significance of SMEs in India and thereby highlights the contribution of SMEs in the Indian economy. It further throws light on the available sources of finance. The various financial resources include all the variants of debt and equity. The presents

study is developed on the financing constraints faced by SMEs in India. Therefore, the overview of different sources of finance available for SMEs helps in accessing the financing preferences and practices of SMEs in India. This will assist in assessing the contextual backdrop for the financial sources available in India.

The theoretical background has been studied with an explanation of various financial theories developed on the financing decisions of SMEs. However, the capital structure theories have made a tremendous effort to explain the different aspects related to financing decisions of the firm. It is observed that financing decisions of SMEs are explained on the basis of components of a single theory. Moreover, the theories were developed and studied mainly on large firms in the context of developed economies. Therefore, the applicability of these theoretical underpinnings on SMEs in the context of an emerging economy will definitely provide significant insights into the financing decisions of firms.

The empirical backdrop of the studies based on capital structure was examined with the help of previous studies conducted on determinants of capital structure decisions. This chapter includes firm-specific characteristics, owner/manager attributes and macroeconomic factors. The importance of all the factors is explained from the perspective of the financing decisions of SMEs. Mixed empirical evidence is found on the association between leverage ratio and determinants of the firm. This thereby highlights the necessity of a contextual study because results differ with the change in context and institutional settings. According to Dodd and Patra (2002), the findings obtained from different contexts cannot be applied to another context without prior empirical verification. Therefore, the theoretical and empirical evidence on the determinants of capital structure is required to be examined in the Indian context. The overall examination of the literature has assisted the researcher in identifying the research gaps. This thereby lays the foundation of the fundamental structure of the current study.

CHAPTER-3

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

CHAPTER 3

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Preface

A conceptual framework gives the holistic description of the research model applied in the present study. This chapter begins with the description of various elements of the conceptual framework. It binds the different elements identified in the literature to the central idea of the study. It is followed by the development of research hypotheses which have been formulated on the basis of conceptual framework and empirical evidences provided by the extant literature. The chapter finally finishes with the conclusion.

3.1 INTRODUCTION

A review of the literature provides an overview of the research background and thereby justifies the rationale behind the study. It summarizes the contextual, theoretical and empirical literature on SME financing. This chapter coalesces all the constructs identified in the literature and thereby develops a framework for the present study. The various constructs can be classified based on the source of finance, financial theories of capital structure, factors driving financing decisions of SMEs which include firm- and owner-specific features along with macroeconomic factors. This framework assists in developing theoretical and contextual understanding related with the financing preferences of SMEs in India. The conceptual framework also describes the linkages of all constructs with the central idea of the study. Further, it also assists in the development of the research hypotheses examined in the present study.

3.2 CONCEPTUAL FRAMEWORK

The conceptual framework was developed based on research gaps identified in Chapter 2. The basic ideology behind designing a conceptual framework is to logically integrate all the relevant aspects of a concept to arrive at a process that can provide the best possible explanation of the problem stated (Brown *et al.*, 1995).

SME financing is the most under-researched area of corporate finance (Wu *et al.,* 2008). Because financing needs and options change with the size and age of a firm, it becomes imperative to design a framework that can provide guidelines for the identification and analysis of the financing preferences of SMEs.

Figure 3.1 Conceptual Framework of Present Study

Firm Specific Characteristics

1. Tangibility
2. Profitability
3. Cash Flow
4. Non Debt Tax Shield
5. Size
6. Liquidity
7. Growth
8. Age

Features of Capital Structure

1. Firm & Manager/owner specific
2. Specific capital structure theories
3. Identifying Financing Practices

Financing-Preferences

1. Internal Equity Financing
2. Short Term Financing
3. Long Term Financing
4. External Equity Financing
5. Other Form of Financing

Macro-Economic Factors

1. Monetary
2. Political
3. Technological

Managerial/Owner's-Attributes

1. Age
2. Gender
3. Education
4. Experience
5. Ownership

Sources of Finance

1. Internal Finance
2. Bank Finance
3. Financial Institutions
4. Non Banking Financial Institutions
5. Funds from Family Friends and Relatives
6. External Equity
7. Government Financing
8. Money Lenders

(⟶ Indicates Direct Influence; ⋯▸ Indicates indirect influence)

The framework outlines the required directives for the study conducted on the financing preferences of SMEs and includes demand side and supply side determinants of SME financing. The inconclusiveness of capital structure has accentuated the complexity of long-term financing decisions of SMEs. Financing decisions cannot be made in isolation because they affect all operations of a firm.

Demand side analysis includes firm-specific and manager-/owner-specific characteristics. Interaction of these factors helps in identifying the current financing practices of a firm. Firm-specific factors also facilitate the applicability of capital structure theories in the context of SMEs in India. This will further assist in explaining the theoretical rationale behind the financing preference of SMEs.

While examining these factors, SMEs take into account the effect of each variable on their financing decisions. This can help owners/managers more efficiently in deciding capital structure; however, this is not possible without integrating the effects of the supply side analysis of SME financing. Supply side analysis includes various sources of capital available in the market and how these sources can affect financing decisions. Thus, the equilibrium point depends on the intersection of demand and supply variables, and it can be varied for different combinations. This clearly indicates the significance of demand and supply side factors of firm financing which can possibly cause shifts in equilibrium. The macro-economic environment affects both the demand and supply sides of financing. In fact, it is the systematic risk associated with the requirement and supply of finance. Macroeconomic factors include monetary factors (mainly economic growth, lending rates, taxes, inflation, political factors, government policies and political stability in the country) and technological factors (adoption of new and advanced technology). Undoubtedly, it influences the financial ecosystem. Also, during an economic crisis, SMEs encounter more financial problems as compared to large firms within the same macroeconomic conditions. In the case of cross-country analysis, macroeconomic factors differ from country to country and therefore must be included in identifying the financing preferences of SMEs.

The extant research claims that identification of financing preferences will help in determining the gap between existing and preferable financial structures of SMEs. The literature survey has also documented the presence of a financing gap for SMEs; however, where this gap exists in the financial ecosystem, at which point it originates in a firm's life cycle and the prominence of the gap can be studied only by analysing the financing preferences of SMEs.

3.3 HYPOTHESES DEVELOPMENT

Hypotheses for the current study were developed during the manifestation of the research problem. These are specifically based on the theoretical model developed by the researcher. Hypotheses were designed based on theoretical assumptions.

Hypothesis testing began with an assumption, known as a *"hypothesis"* that was made about a population parameter. Sample data were gathered to test the validity of the assumption. The difference between the hypothesized value and the actual value of the sample mean was statistically determined and tested for significance.

The hypotheses for the current study were developed in accordance with the stated research objectives. This study examines the financing preferences of SMEs from various angles. The following section illustrates the different hypotheses developed for accomplishing the objectives of the present study.

3.3.1 Financing Preferences and Practices of Indian SMEs

Firms need financial resources to operate. Yet some firms have much greater difficulty in obtaining funds than others. SMEs, whether in developing or developed nations, face many obstacles in procuring the necessary funds (Boocock and Wahab, 2001). For example, De (2010) discussed the problems that Indian SMEs encounter in obtaining short-and long-term financing. Hussain *et al.* (2006) reported that the majority of Chinese SMEs lack sufficient capital to meet their long-term requirements. In fact, Kraemer-Eis and Lang (2012) viewed this concern as a fundamental structural issue for SMEs. Within emerging and developing economies, government regulations and regulatory bodies often lack the flexibility to accommodate the financing requirements of small firms. In fact, regulations sometimes discourage lending from formal sources (Lucey *et al.*, 2016).Therefore; there is a need to understand the financing preferences and practices of SMEs.

Financial resources have been broadly classified into four main categories, namely, Internal Equity Financing (IEF), Short-Term Financing (STF), Long-Term Financing (LTF), External Equity Financing (EEF) and Other Forms of Financing (OFF). The present study illustrates the preferred sources of finance and the existing sources of finance availed by SMEs in India. It has been already discussed that SMEs have been facing financial constraints, so there is a high probability for differences existing between financing preferences and practices of SMEs. This forms the basis for the first hypothesis of the present study-

H_1: The financing preferences and practices of SMEs are different from each other.

The following sub hypotheses were formulated in line with the first hypothesis-

H_{1a}: The level of financing preferences pertaining to IEF differs from the actual usage of IEF.

H_{1b}: The level of financing preferences pertaining to STF differs from the actual usage of STF.

H_{1c}: The level of financing preferences pertaining to LTF differs from the actual usage of LTF.

H_{1d}: The level of financing preferences pertaining to OFF differs from the actual usage of OFF.

Apart from the existence of differences between financing preferences and practices of SMEs, the probability of the likelihood of the association between preferences and practices cannot be overlooked. The differences are obviously due to the existence of financing hurdles. However, the association between financing preferences and practices lead to the understanding of the type of financial resource preferred when a firm used a particular type of financial resources. This leads to the formation of the second hypothesis of the study-

H_2: There is a statistically significant association between the level of financing preferences and actual financing resources used by SMEs.

The following sub hypotheses were formulated in line with the second hypothesis-

H_{2a}: There is a statistically significant association between the actual usage of IEF and the level of financing preferences of SMEs.

H_{2b}: There is a statistically significant association between the actual usage of STF and the level of financing preferences of SMEs.

H_{2c}: There is a statistically significant association between the actual usage of LTF and the level of financing preferences of SMEs.

H_{2d}: There is a statistically significant association between the actual usage of OFF and the level of financing preferences of SMEs.

3.3.2 Financing Preferences across Firm- and Owner-/Manager-Specific Characteristics

It must be kept in mind that for the analyses of financing preferences of SMEs, it is imperative to understand that preferences are not the outcome of a single variable. The analyses of financing preferences depend on various factors pertaining to firm and owner/manager features. It has been documented in various studies pertaining to the SME financing literature that financing preferences of a firm change across the firm- and owner-/manager-specific features. This forms the basis of the next two hypotheses of the study-

H₃: There is a significant difference across firm-specific characteristics and financing preferences of SMEs.

The following sub hypotheses were formulated in accordance with the third hypothesis-

H₃ₐ: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ for different forms of businesses.

H₃ᵦ: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ across the various stages of a firm's life cycle.

H₃c: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ across firm size.

H₃d: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ for manufacturing and service sector.

H₃e: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ for exporters and non exporters.

Situational factors affect both financing preferences and practices. For SMEs, these factors often depend on the owner's perspective because the owner is a central factor in influencing the financing decisions of such firms. Thus, identifying the differences between various sources of financing preferences requires study of owner characteristics. This marks the path of the next hypothesis of the study-

H₄: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) are different across owner-specific features.

The following sub hypotheses were formulated in accordance with the third hypothesis-

H₄ₐ: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ among male and female SME owners/managers.

H₄ᵦ: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ across the age of SME owners/managers.

H₄c: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ across the educational level of SME owners/managers.

H₄d: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ across the experience of SME owners/managers.

H₄e: Financing Preferences of SMEs (IEF, STF, LTF, OFF and EEF) differ across SME owners and managers.

3.3.3 Relationship between Financing Preferences and Owner-/Manager-Specific Variables

Individual characteristics of SME owners/managers play a vital role in determining financing preferences (Low and Mazzarol, 2006). The significance of personal features of SME owners/managers has also been explained by Irwin and Scott (2010). They documented that gender, education and ethnicity distinguished SME owners/managers in their financial decisions. Further, managerial theories of capital structure provide a better explanation in describing the financing decisions of small firms. Therefore, the role of owners becomes strategically important specifically in the case of SMEs. The following section explains the hypotheses formulated based on the relationship expected between owner/manager/characteristic and financing preferences.

3.3.3.1 Gender- This is an important and the most frequently examined variable in the studies of SME financing. However, most of the studies have found no significant relationship between the financing decisions and gender of SME owners/managers (Coleman, 2000; Verheul and Thurik, 2001; Cassar, 2004; Hussain *et al.*, 2010). However, female entrepreneurs are less likely to use debt financing (Watson, 2006). Coleman and Cohn (2000) also provided evidence in support of differences in financing decisions on the basis of gender. Carter and Rosa (1998) also documented that male owners use more external capital at the start-up stage and expansion stage as compared to female owners. On the contrary, Osei-Assiby *et al.* (2010) found that formal debt capital has been used more by female owners as compared to male owners at the start-up stage. These arguments lead to the formulation of the following hypotheses for the present study-

H_{5a}: *Gender is positively related to IEF.*

H_{5b}: *Gender is positively related to STF.*

H_{5c}: *Gender is positively related to LTF.*

H_{5d}: *Gender is negatively related to EEF.*

H_{5e}: *Gender is positively related to OFF.*

3.3.3.2 Age- Young entrepreneurs have probably faced the issue of seed capital for funding their business. However, nowadays, various funding options are available in the form of business angels, venture capitalists and even the government has come up with a variety of funding options for start-ups. Therefore, it is quite possible that young entrepreneurs sought alternative channels of finance as compared to formal

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ones. This is in agreement with the findings of Carter and Rosa (1998). Further, age is also related to experience; therefore, as age increases owners/managers are more likely to get external funding for their businesses (Wu *et al.*, 2008). Vos *et al.* (2007) reported that younger managers avail more external financing as compared to older managers. On the contrary, Cassar (2004) and Romano *et al.* (2000) found no significant difference between owners'/managers' age and leverage decisions. The following hypotheses were made on the basis of explanations provided in the literature-

H_{6a}: *Age of the SME owner/manager is positively related to IEF.*

H_{6b}: *Age of the SME owner/manager is positively related to STF.*

H_{6c}: *Age of the SME owner/manager is positively related to LTF.*

H_{6d}: *Age of the SME owner/manager is negatively related to EEF.*

H_{6e}: *Age of the SME owner/manager is positively related to OFF.*

3.3.3.3 Education- This is a significant variable found to influence the financing preferences of SMEs. The educational level of the owner/manager sends a positive signal to lenders about the quality of intellectual capital of a firm (Borgia and Newman, 2012). Therefore, educational level of the SME owner/manager is expected to have a positive association with the debt financing and (Coleman and Cohn, 2000; Zhang, 2008). Scherr *et al.* (1993) found a positive association between the owner/manager's education and external debt financing. This is also supported by Bell and Vos (2009). This may be due to the reason that knowledge of highly educated personnel is supposed to be more content in the financial decisions. Further, they are also able to evaluate the available financial options beneficial for firms in the long term.

However, the empirical evidence shows conflicting results pertaining to the association of educational levels with financing decisions. The negative association between educational levels and external debt indicate towards the risk-aversive nature of SME owners/managers which made them reluctant to outside funding (Diener and Seligman, 2004; Vos *et al.*, 2007). Further, some studies have also reported an insignificant relationship between the owner/manager's educational level and financing decision (Cassar, 2004; Borgia and Newman, 2012). The present study examines the financing preferences of SME owners/managers in terms of IEF, STF, LTF, EEF and OFF. Therefore, it identifies the specific relationship of education with different modes of financing.

On the basis of the above arguments, the following hypotheses were being formulated-

H_{7a}: *The educational level of the SME owner/manager is negatively related to IEF.*

H_{7b}: *The educational level of the SME owner/manager is positively related to STF.*

H_{7c}: *The educational level of the SME owner/manager is positively related to LTF.*

H_{7d}: *The educational level of the SME owner/manager is negatively related to EEF.*

H_{7e}: *The educational level of the SME owner/manager is positively related to OFF.*

3.3.3.5 Experience- Risk aversion and fear of control dilution are the most plausible explanations that govern the financing decisions of SMEs. It has been observed that more experienced owners/managers are found to have less inclination towards external financial resources (Cassar, 2004). This is probably due to their knowledge and expertise in the business (Chandler and Hanks, 1998). Another possible reason may be earlier reluctance faced by owners/managers from lenders, because of which they do not wish to procure funds from these resources. This results in the procurement of funds from either other informal resources or internal resources. On the contrary, Zhang (2008) demonstrated that SME owners/managers having working experience before establishment of their enterprises are likely to be more inclined towards formal financing. This is because lenders consider experience as a significant factor in reducing information asymmetry. The positive association between owner's experience and leverage is also supported by Borgia and Newman (2012). In contrast to this, Coleman and Cohn (2000) reported no empirical evidence to showcase the relationship of experience with external debt. The above explanation leads to the formulation of the following hypotheses with respect to different financing preferences-

H_{8a}: *The experience of the SME owner/manager is positively related to IEF.*

H_{8b}: *The experience of the SME owner/manager is negatively related to STF.*

H_{8c}: *The experience of the SME owner/manager is negatively related to LTF.*

H_{8d}: *The experience of the SME owner/manager is negatively related to EEF.*

H_{8e}: *The experience of the SME owner/manager is positively related to OFF.*

3.3.3.6 Ownership structure-It is unequivocally an important and significant determinant of the financing decisions of SMEs. Mac an Bhaird and Lucey (2006) pointed out that ownership is positively related to internal equity and negatively associated with external equity financing. Ownership structure becomes more imperative for SMEs because there has been no separation between ownership and

control. The preference for external financing increases for firms where level of interference increases due to changes in the ownership structure (Osei-Asseby *et al.*, 2010). This leads to the formulation of the following hypotheses for the present study:

H_{9a}: The ownership status of SME owners/managers is positively related to IEF.

H_{9b}: The ownership status of SME owners/managers is positively related to STF.

H_{9c}: The ownership status of SME owners/managers is positively related to LTF.

H_{9d}: The ownership status of SME owners/managers is negatively related to EEF.

H_{9e}: The ownership status of SME owners/managers is positively related to OFF.

3.3.4 Importance of Capital Structure Determinants for SMEs

An optimal financing mix depends on various country namely industry-, firm- and owner-specific factors. The interplay of these factors determines the resources chosen for funding an SME's operations. Although it is difficult to determine which factors dominate, recent research suggests that both firm-and owner-specific factors highly influence the financing decisions of SMEs (Psillaki and Daskalakis, 2009; Borgia and Newman, 2012). The significance of owner-specific variables has been already explained in the previous hypothesis.

This section highlights the importance of micro-variables and macro-variables in the financing decisions of SMEs. The variables associated with the micro environment are basically firm-specific and industry-related variables, whereas macro-variables are explicitly associated with the monetary, political and technological aspects of the country. The present study seeks to identify the importance of these factors across the size of SMEs in India. It exclusively determines the difference in the importance of a specific factor (micro and macro) for micro, small and medium enterprises in India.

H_{10a}: Firm-specific variables (Profitability, asset structure, liquidity, cash flow, non-debt tax shield, age, interest expenses and industry trends) are equally important in making financing decisions for micro, small and medium enterprises.

H_{10b}: Macroeconomic variables (interest rate, investment rate, GDP, inflation, tax rate, government policy, access to technology) are equally important in making financing decisions for micro small and medium enterprises.

3.3.5 Relationship between Firm-Specific Variables and Leverage Ratio

Empirical studies on capital structure decisions exhibit mixed evidence. The ambiguous nature of relationships between capital structure decisions and firm-specific variables is mainly due to the high degree of variability associated with the

idiosyncrasies in firm and owner characteristics, market conditions and accessibility of financial capital (Robb and Robinson, 2012).

SMEs mainly choose short-term financing for running their business operations because these firms face difficulty in accessing long-term debt from lending institutions. Therefore, leverage has been measured in three different forms, namely, long-term debt, short-term debt and total debt, to capture the individual effect of firm-specific variables on financing decisions. The following section describes the probabilistic association of the different predictor variables with the measure of leverage. It forms the basis of formulation of hypotheses related to each variable, which has been discussed below-

3.3.5.1 Tangibility- It presents the asset structure of a firm. It is closely associated with the cost of bankruptcy and liquidations If a firm invests in assets such as land, building and machinery, these assets are supposed to be shielded from the probable cost of financial distress. Stiglitz and Weiss (1981) stated that banks always considered collateral in reducing adverse selection and moral hazards. This overcomes the issue of information asymmetry. Lending institutions generally prefer collateral for sanctioning secured loans (Binks *et al.*, 1988). Physical assets that help in securing loans are known as tangible assets. These assets also lower the agency cost. Therefore, firms possessing fixed assets with a suitable value of collateral face fewer hurdles in procuring loans from lenders or financiers. Moreover, SMEs suffer from the problem of information asymmetry and often do not have audited financial statements, which make collateralized lending even more imperative for them.

Further, Myers (1977) pointed out that duration of loans should be matched with the life of the collateralized asset. This is supported by the asset matching principle and thereby asserts a positive relationship between tangibility and long-term debt. Michaelas *et al.* (1999), Hall *et al.* (2004) and Sogorb-Mira (2005) found a positive effect of tangible assets on leverage for SMEs. However, asset structure has been found to be negatively associated with short-term debt. This implies that firms having more tangible assets rely more on funds generated through internal resources (Daskalakis and Psillaki, 2008).

Therefore, the next hypothesis regarding asset structure is as follows-

H_{11a}: *Tangibility is positively related to long-term debt.*

H_{11b}: *Tangibility is negatively related to short-term debt.*

H_{11c}: *Tangibility is positively related to total debt.*

3.3.5.2 Profitability- It is one of the most common independent variable used in various empirical studies. Financing decisions also depend on the cost of financing. According to Myers (1984), external financing has been likely to be more expensive for firms. Therefore, it has been observed that highly profitable firms prefer internal financing. However, high profitability conveys positive signals to lenders and financiers about the financial health of the firm and they will be less hesitant in extending financial support to these profitable firms. Zhang (2010) reported that the relationship of profitability with leverage depends on the adequacy of profitability to attract loans. He further asserted that firms resort to debt financing if they have a sufficient amount of profit available to lure investors. Therefore, a positive relationship has been predicted between leverage and profitability in manufacturing SMEs. Moreover, it is not always necessary that high profitability boosts borrowings. It also depends on the desire of the borrower to borrow from external resources (Zhang, 2010).

On the contrary, empirical studies on SMEs mainly demonstrate the negative association of profitability with debt. Both long-term and short-term debts are found to be negatively associated with profitability. This is because when firms make short-term losses, they can be easily recovered by short-term debt. For long-term debt, a higher transaction cost and interference of debt providers in the form of some covenants restrict profitable SMEs from procuring external finance for a longer period.

This leads to the formulation of an another important hypotheses of the present empirical study-

H_{12a}: *Profitability is negatively associated with Long-term debt.*

H_{12b}: *Profitability is negatively associated with Short-term debt.*

H_{12c}: *Profitability is negatively associated with Total debt.*

3.3.5.3 Cash flow- It often allowed managers to invest sub-optimally (Jensen and Meckling, 1976), which leads to agency conflicts between owners and managers. Therefore, to reduce these types of conflicts and to put pressure on managers, debt is used in the capital structure of the firm. However, this is true for large firms only because small firms are generally governed by owners and the possibility of agency conflicts is very rare. Therefore, excessive cash flows generally reduce the problem of financing in SMEs (Mateev *et al.*, 2013). This forms the basis of our next hypothesis-

H_{13a}: *Cash flows are negatively related to Long-term Debt.*

H_{13b}: *Cash flows are negatively related to Short-Term Debt.*

H_{13c}: *Cash flows are negatively related to Total Debt.*

3.3.5.4 Non-debt tax shield-It involves tax deductions for depreciation and investment tax credits (Chakraborty, 2010). Esperanca *et al.* (2003) found a negative relationship of NDTS with long-term and total debt but an insignificant association with short-term debt for SMEs. It is assumed to be negatively associated with leverage because it is supposed to be a substitute for the tax shield obtained by the firm from debt financing. Therefore, the next hypothesis of the study is as follows-

H_{14a}: *NDTS is inversely related to long-term debt.*

H_{14b}: *NDTS is inversely related to short-term debt.*

H_{14c}: *NDTS is inversely related to total debt.*

3.3.5.5 Firm Size-is another important variable used to explain the capital structure of firms. Larger firms have greater access to external funds and the cost of acquiring external financial resources is lesser for larger firms as compared to that for small firms. Both TOT and POT assume a direct relationship between size and leverage which is also supported by the empirical literature (Michaleas *et al.*, 1999; Cassar and Holmes, 2003; Hall *et al.*, 2004; Sogorb-Mira, 2005).

Further, the issue of information asymmetry is relatively acute in SMEs. Berryman (1982) observed a strong negative correlation between firm size and the probability of liquidation. This implies that lenders are highly reluctant in lending to SMEs (Hall, 1995). This may be due to inefficacy of management skills. Nevertheless, high transaction cost also supports the fact of lending difficulties associated with SMEs. Therefore, it has been expected that there is a positive relationship between long-term debt (Cassar and Holmes, 2003; Hall *et al.*, 2004) and size and negative association between short-term debt and size (Hall *et al.*, 2004; Serrasquiero and Nunes, 2012; Benkraiem and Gurau ,2013). This forms the basis for the hypothesis of the study which is as follows-

H_{15a}: *Size is positively related to long-term debt.*

H_{15b}: *Size is negatively related to short-term debt.*

H_{15c}: *Size is positively related to total debt.*

3.3.5.6 Liquidity- SMEs have a higher proportion of current liabilities in their capital structure as compared to large firms (Mateev *et al.*, 2013). Liquidity is used to control

short-term obligations; therefore, it is supposed to be negatively related to SMEs. The literature exhibits a mixed relationship between liquidity and debt ratio. Firms having higher liquidity ratios may have higher debt ratios due to their ability to meet short-term liabilities. This implies a positive relationship between a firm's liquidity and leverage (Abu Mouamer, 2011). Alternatively, firms having a current ratio >1 may finance their long-term investments with the current assets; therefore, this may be the reason behind the negative relationship of liquidity with long-term debt. Moreover, liquidity may result in a higher agency cost. It might result in restricting the debt financing available to firms through lenders and financers (Myers and Rajan, 1998). Therefore, liquidity is supposed to be negatively associated with all forms of leverage (Moosa *et al.*, 2011). So, the hypothesis is as follows-

H_{16a}: *Liquidity is negatively related to long-term debt.*

H_{16b}: *Liquidity is negatively related to short-term debt.*

H_{16c}: *Liquidity is negatively related to total debt.*

3.3.5.7 Growth- It is another significant determinant of capital structure. It is calculated as the percentage change in sales on a year on year basis. The relationship of growth with leverage is not clearly defined by any of the capital structure theories. It can have a positive and a negative relationship with leverage. SMEs are often overzealous in their growth aspirations with obvious moral hazard consequences (Myers, 1977). Thus, growth may have uncertain effects on firms' financing. On the one hand, growth causes variations in the firm's value and larger deviations in the firm's value are often associated with a greater risk. As a result, these firms will be expected to use less debt in their financial structure. Myers (1977) argued that firms with a high growth potential will tend to have lower leverage. On the other hand, growth will push firms into seeking external financing because firms with high growth opportunities are more likely to exhaust internal funds and require additional capital. From this point of view, growth is expected to have a positive relationship with leverage (Michaleas *et al.*, 1999; Degryese *et al.*, 2010; Forte *et al.*, 2013). This will lead to the formulation of the last hypothesis of the study-

H_{17a}: *Growth is positively related to Long-term debt.*

H_{17b}: *Growth is positively related to Short-term debt.*

H_{17c}: *Growth is positively related to Total debt.*

3.3.5.8 Age- It is a standard measure for the firm's reputation in the market (Diamond, 1989). Older firms have a higher capacity to attract loans as compared to

new firms because these firms have established themselves as a continuing business and have high creditworthiness (Abor, 2007). However, young firms mainly rely on their own funds and retained earnings as these firms refrained from getting external finance due to low credibility in the market (Serrasquiero and Nunes, 2012). Abor (2007) also reported a positive relationship of age with debt. Therefore, it is expected that the age of a firm is positively related to long-term debt. The inverse association of age with short-term debt implies that older firms have high retained earnings and thus have lower external financial requirements. On the contrary, new firms are forced to borrow due to an insufficient amount of accumulated funds (Hall *et al*., 2004).

However, Odit and Gobardhun (2011) have reported a negative association of age with long-term debt and a positive association of age with short-term debt. This may be because older firms do not have good track records in terms of financial worthiness. Further, it is also possible that the creditor found younger firms to be riskier as compared to older firms. Therefore, they are hesitant in offering credit facilities to younger firms.

Based on the above arguments, the following hypotheses were formulated-

H_{18a}: *Age is positively related to Long-term Debt.*

H_{18b}: *Age is negatively related to Short-term Debt.*

H_{18c}: *Age is positively related to Total Debt.*

Several empirical studies have reported (Harris and Raviv, 1991; Michaleas *et al.*, 1999; Hall *et al.*, 2000; Abor, 2007; Serrasquiero, 2011) that association between firm-specific determinants and leverage ratios have not been identical for different industry sectors. For instance, service SMEs are expected to be more dependent on short-term debt due to the low level of fixed assets. Moreover, the financial requirements of manufacturing SMEs are high as compared to those of service enterprises. Highly profitable SMEs in the service industry will resort to internal financing when compared with manufacturing SMEs (Zhang, 2008). It is imperative to distinguish between financing decisions of manufacturing and service SMEs because external financing of these firms is highly influenced by asset composition (Myers, 1984). Therefore, manufacturing firms with tangible assets have a greater chance to obtain external finance from creditors as compared to service SMEs having intangible assets. Cressy and Olofsson (1997b) also confirmed the fact that service SMEs face higher credit constraints as compared to manufacturing SMEs. This may be because of the difficulty in evaluation of intangible assets as compared to tangible

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assets for lenders. This implies that level of information asymmetry in the relationship of SMEs and lenders has a different relative importance for manufacturing and service SMEs (Serrasqueiro, 2011). Hence, it is essential to independently examine the capital structure decisions of manufacturing and service SMEs. Moreover, the service sector has a special significance in the sphere of the Indian economy and it also contributes significantly to the growth of the country. This led to the formation of the final hypothesis of the study:

H_{19}: *The capital structure determinants of manufacturing and service SMEs are different from one another for different debt levels.*

3.4 CONCLUSION

This chapter explains the constructs of the conceptual model and the inter linkages between the constructs. It gives an insight into the potential association between financing preferences of SMEs and other variables. Further, the chapter describes the hypotheses in the contextual setting of Indian SMEs. The probable reasons have been also supported by earlier studies reported in the literature.

The next chapter elaborates on the research methodology and methods used to test research hypotheses. This is explained under the framework of research design, data collection procedures and research techniques. The subsequent chapters present the research findings and implications of the present study.

CHAPTER – 4
RESEARCH METHODOLOGY

CHAPTER 4

RESEARCH METHODOLOGY

Preface

This chapter describes the research methodology for the current study. It commences with the narration of the research objectives and research questions to develop the fundamental ground for preparing the research design. This is followed by the discussion and justification of the research purpose of the study. An explanation of adoption of the research philosophy, choice, approach, time horizon and strategies is also given. This chapter distinctively presents the research methodology of the preliminary and main studies. The sample selection and data collection procedures are elaborated independently for the preliminary and main studies. Also given is the description of the research techniques used in the study that finally leads to the conclusion of the chapter.

4.1 INTRODUCTION

Research Methodology entails a systematic and objective process of gathering, recording and analysing data that provide information to guide research findings. It identifies the type of data required in addressing a research problem and thereby guides in designing the methods for data collection. It helps in selecting suitable research techniques as per the research questions. Further, it manages and implements the data collection process; analyses the results; and communicates the findings and their implications.

The prime objective of this study was to explore the financing preferences of SME owners in India. The financing preferences were compared with financing practices adopted by SMEs. It thereby highlights the current capital structure of SMEs and compares the accessible and available financial resources with the availed ones. This study also investigates the influence of owner's characteristics on their level of financing preferences. It further investigates the different financial resources availed and preferred during various stages of the business life cycle. It also examines the determinants of the capital structure of SMEs and investigates the applicability of theoretical underpinnings in the context of SME financial structure. This study also identifies the gap between preferred and availed financial resources. This leads to an

improvement in the financial assistance available to Indian SMEs. This will also deepen the existing body of knowledge.

4.2 RESEARCH OBJECTIVES AND QUESTIONS

The importance of studying inter-relationship between research objectives and research question has been reported inevitable by the researchers (Hair *et al.,* 2007). This guides researchers in the choice of the research strategy. Research objectives are designed to reflect the desired outcome of the study. Research objectives and questions finally help the researcher in designing the research methodology to be adopted in the study. The prime objective of this study was to understand the financing behaviour of SMEs in India. The objectives are as follows:

1. To identify and analyse the prevalent financing preferences of SMEs,

2. To determine the strength of association between owners'/managers' financing preferences and   existing capital structure of SMEs,

3. To establish the relationship (if any)between SME owners'/managers' attributes and financing preferences of firms for different sources of funds,

4. To investigate the factors determining the capital structure of SMEs and measure the applicability of capital structure theories with reference to SMEs.

The above-stated objectives were achieved by gathering data from multiple resources through multiple methods. The unit of the study is SMEs from the Northwest Region of India. The research objectives were converted into research questions to specify the interest of the researcher (Hair *et al.,* 2006). It also highlights the nature of the issue under study (Hussey and Hussey, 1997). The research questions pertaining to the financing preferences and determinants of capital structure are as follows:

1. What are the various financing preferences of SMEs in India?

2. Is there any significant difference between owner/manager financing preferences and the current sources of financing chosen by the firm?

3. Is there any relationship between owner/manager attributes and the financing preferences of owner/manager for different sources of funds?

4. What are the major determinants of the capital structure of SMEs and which theory of capital structure explains the existing financing mix of SMEs?

4.3 RESEARCH PURPOSE

Research purpose concerns with the approach of research questions under investigation. Saunders *et al.* (2009) classified the research purpose under three broad

categories, namely, exploratory, descriptive and explanatory. According to Hussey and Hussey (2007), research purpose can also be analytical and predictive in nature. Further, it is possible that the study undertaken may have two or more research purposes. Therefore, research questions can be answered in more than two ways. The major classification of research purpose has been described below-

4.3.1 Exploratory Study

It answers three questions, namely, *"what is happening", "what the new insights are" and "how a phenomenon has been assessed in a new light"* (Robson, 2002). It is particularly helpful when one needs to elucidate the understanding of an issue or is uncertain about the precise nature of the problem. An exploratory study can be conducted in three main ways, namely, by reviewing the literature, interviewing subject experts and conducting focus group interviews.

4.3.2 Descriptive Study

Robson (2002) stated that descriptive research depicts an accurate silhouette of people, events or situations. It is basically a precursor to exploratory and explanatory research. The comprehensive understanding of the issue under investigation is the prerequisite of this type of study.

4.3.3 Explanatory Study

Saunders *et al.* (2009) defined explanatory research as a study for establishing causal relationships between variables. These studies place more emphasis on studying whether or not one event causes another. This is also known as causal study (Hair *et al.,* 2007).

The current study is mainly divided into three main parts: The first part comprises a literature review and thereby establishes a fundamental understanding of the problem under study. The second part constitutes the elements of the preliminary study conducted on the SMEs owners. This study was performed to investigate the real-time issues faced by SME owners in India. It was executed with the help of a convergent interview. This part of the research is exploratory in nature. The final objectives were also formulated on the basis of the review of the literature and preliminary study.

The central objective of this study was to identify and analyse the financing preferences and practices of SMEs in India. This part of the research is descriptive in nature. However, other objectives involve the study of the relationship between firm-specific variables and different measures of leverage, the association between owner/manager characteristic and financing preferences of SMEs. Therefore, these

elements of the study are considered to be explanatory in nature. Overall, the current study is descriptive and explanatory as the purpose of the study is to describe financing preferences and to investigate the determinants of capital structure of SMEs in India.

4.4 RESEARCH DESIGN AND METHODOLOGY

The research design binds all the conceptual elements and arrives at a framework suitable for the stated objectives of the study. It is a blueprint of the research and conveys information about how research is to be carried out. According to Sapsford and Jupp (2006), a philosophical stance of the world view that underlies or determines the style of research is known as research methodology. Alternatively, Collis and Hussey (2003) and Creswell (2009) considered research methodology as a holistic approach to plan the research process with the inclusion of all phases of research from the theoretical background to the collection and analysis of data. Therefore, a philosophical stance is essential for the designing of research methodology. Research philosophy primarily addresses the assumptions that support the research strategy (Saunders *et al.,* 2009).

4.4.1. Research Philosophy

This relates to the *"development of knowledge and nature of that knowledge"*. According to Johnson and Clark (2006), a researcher needs to be aware of philosophical commitments. Research philosophy is influenced by practical considerations. Therefore, it is important for a researcher to be well aware of the reasons behind the adoption of a particular research philosophy. Suitability of the research philosophy depends on the research question under investigation. It is also possible that the plausible answer to the research question falls into more than one philosophical domain.

Research philosophy can be classified in three major ways, namely, epistemology, ontology and axiology. Each contains important differences which will influence the way in which one thinks about the research process. Epistemology concerns what constitutes acceptable knowledge in the field of study. Ontology is a branch of philosophy which is concerned with the nature of social phenomenon as entities. Finally, axiology studies judgements about value.

Research philosophies are also known as research paradigms (Hussey and Hussey, 1997). A research paradigm offers a framework that comprises an accepted set of theories, methods and ways of defining data. The basic research paradigms are

positivist and phenomenological. A positivist paradigm is also termed quantitative, objectivist, scientific, experimentalist and traditionalist. A phenomenological paradigm is known as qualitative, subjectivist, humanistic and interpretive. Saunders *et al.* (2009) classified research paradigms into four types namely, positivism, realism, interpretivism and pragmatism.

Positivism states that reality is stable and can be observed and explained objectively. This approach considers an independent phenomenon and repeatable observations. Realism relates to scientific enquiry. This basically believes in the independent existence of objects and what truth has been observed through senses. Interpretivism asserts that it is necessary for the researcher to understand the role of a human being as a social actor. Pragmatism considers the research question to be the most important factor of epistemology, ontology and axiology. It is possible that one approach may be more appropriate in providing the answer to a specific research question (Saunders *et al.*, 2009).

The present study has taken on a positivistic research paradigm to accomplish the desired research objectives. Theoretical assumptions of small business financing and capital structure theories were applied to develop research hypotheses for the study. Quantitative data were collected through a structured questionnaire and financial statements of firms. This facilitated statistical analysis. Research findings were used to describe and explain the financing preferences and determinants of capital structure of SMEs. This thus helps in maintaining the objectivity required by the positivistic research paradigm applied in the study.

4.4.2 Research Approach

This allows one to obtain solutions to the research question of the study. Easterby-Smith *et al.* (2008) suggested three reasons for understanding the research approach: firstly, it enables a researcher to make more informed decisions about the research design; secondly, it enables the researcher to decide about research strategies and choices to be adopted for a study and finally it allows the researcher to develop a research design so that it can accommodate the research constraints effectively.

The classification of the research approach can be based on the nature of the research question and data collection methods. Broadly, the research approach can be classified in two ways, namely, inductive and deductive approaches.

4.4.2.1 Deductive Approach- The deductive approach involves the development of a theory which is subjected to rigorous tests. According to Collis and Hussey (2003), it is the leading research approach in natural sciences. In this type of approach, explanations, anticipation and occurrences of a phenomenon are described through theoretical underpinnings. The main features of the deductive approach are as follows:

1. A search is made to explain the causal relationship between variables.
2. It allows the control of variables to test hypotheses.
3. It requires the use of a structured methodology to facilitate replication and to ensure reliability.
4. There is a prerequisite of independency of the researcher and the research object.
5. It works on the principle of reductionism.
6. It has the ability to generalize the findings of the research.

4.4.2.2 Inductive approach- It deals with theory building while the deductive approach deals with theory testing. The inductive approach moves from specific to general while the deductive approach moves from general to specific. Creswell and Plano Clark (2007) defined the inductive approach as *"an identification of broad themes from the respondents and generate a theory by interconnecting the themes"*. Inductive approach has been mainly applied in social sciences. This research approach mainly deals with the understanding of the research problem. It results in theory formulation. It is qualitative in nature. This type of approach does not follow a rigid methodology and permits alternative explanations of the phenomenon under investigation. The main features of inductive approach are as follows:

1. It is a context-driven approach.
2. It is based on qualitative data.
3. It deals with the "why" factor of a phenomenon.
4. It is highly flexible in nature.
5. It is relatively less concerned with the aspect of generalization of research findings.

The current study applied a deductive approach. This is because the research objectives were developed based on a conceptual and theoretical understanding of financial theories relevant to small business finance. It tests the theoretical underpinnings of the capital structure and managerial theories applicable to small business financing. It also examined the statistical differences between financing

preferences and financing practices of SMEs in India. Therefore, the deductive approach is the most appropriate research approach for the present study.

4.4.3 Research Strategies

These strategies are guided by research objectives and questions, the extent of extant knowledge, the availability of resources and philosophical underpinnings. The significance of a research strategy depends on the research objectives. However, research strategies are not mutually exclusive to each other and one can apply more than one research strategy to get the answer to a particular research question. Further, a research strategy can sway the research design and the methods adopted for data collection and techniques of analysis. The major research strategies used in the research are experiment, survey, case study, action research, grounded theory, ethnography and archival research (Saunders *et al.,* 2009). This section describes the prime research strategies used in this study.

 4.4.3.1 Surveys- These are associated with the deductive research approach, which is one of most common and popular strategy in business and management research. It provides answers to the questions depicting who, what, and where. It is therefore applied in exploratory and descriptive research. Surveys are economical and allow one to collect a large amount of data from the population under study. Quantitative data can also be collected through this research strategy. It also helps in determining the possible reasons for a particular relationship between variables. Survey strategy gives more control to researchers over the research process. Furthermore, data collection was also done with the help of structured observation and interviews apart from the questionnaire method (Saunders *et al.*, 2009).

4.4.3.2 Archival Research- It makes use of administrative records and documents as the principal source of data. It focuses on the research questions that can be answered with the help of a previous dataset and need to be answered over a regular period of time. These can be exploratory, descriptive and explanatory. Availability and accessibility of the required dataset are the prerequisites of archival research.

The present study uses *survey and archival* research strategies. Financing preferences and practices of SMEs were studied with the help of information obtained from the survey conducted on SME owners/managers. The determinants of capital structure of SMEs were investigated with the help of information obtained from the financial statements of SMEs available at the CMIE database.

4.4.4 Research Choices

Research choices highlight data collection techniques and data analysis procedures. These can be broadly classified as quantitative and qualitative. Research choices also distinguish between numeric and nonnumeric data to be used in a study. Metric or numerical data are quantitative in nature and non-metric and non-numeric data are qualitative in nature.

There are various methods of data collection and data analysis procedures. They can be broadly classified into the mono method and multiple methods. A mono method is used when a single data collection technique and corresponding analysis procedure is used in a study. On the contrary, multiple methods correspond to application of more than one data collection procedure and techniques.

The appliance of procedures and techniques altogether depends on the research question and objectives (Saunders *et al.*, 2009). Multiple methods can be further divided into multi-methods and mixed methods. The multi-method approach refers to the use of more than one data collection technique with corresponding analysis techniques. This method adopts either use of multiple quantitative methods of data collection or qualitative methods of data collection. Here, the researcher cannot merge quantitative and qualitative research techniques and procedures.

In contrast, the mixed method approach involves the merger of quantitative and qualitative research techniques and procedures either simultaneously and sequentially or in some form of combination. It is further divided into two parts, namely, mixed method research and mixed model research. Mixed method research involves either parallel or sequential application of quantitative and qualitative data collection techniques and procedures, whereas the mixed model approach combines techniques and procedures to accomplish the research objective.

The present study involves the application of the mixed method approach. According to Alexander *et al.* (2008), mixed methods are applied to increase the reliability of research findings. Moreover, it is a combination of methodologies in the study of the same concept. Denzin (1978) referred to it as triangulation. The deliberate application of more than one methodology also braces the validity of results (Greene, 2007). Further, mixed methods also bring in accuracy in the development of a research instrument (Alexander *et al.*, 2008).

The preliminary study collects information about issues related to SME financing through semi-structured interviews. This information is further used in the main study for the development of a research instrument and to explain research findings.

4.4.5 Time Horizons

Research on a project can be cross-sectional or longitudinal. When a study is performed in a single time frame, it is known as a cross-sectional study, whereas when it is conducted over a period of time, it is known as a longitudinal study. Cross-sectional studies evaluate different population groups in a single frame of time. Moreover, it allows the researcher to compare different variables in a single frame of time. However, cross-sectional studies are not able to describe the cause and effect relationship. On the contrary, longitudinal studies involve features of times series and cross-sectional data. It has the capacity to study change and development.

The current study uses time horizons as per the requirements of the research objective. It adopts mixed method research. The financing preferences and practices of SMEs are studied with the help of a survey conducted on SME owners/managers. Therefore, it takes the form of a cross-sectional study. Further, the determinants of capital structure and their relationship with leverage were identified with the help of information contained in the financial statements of SMEs. Data were collected from the PROWESS database of CMIE for the period 2006-2014.

4.4.6 Research Design for the Study

The current study takes the form of a survey and archival research. A positivistic paradigm is used in the study. It mainly allows the use of quantitative techniques for data collection. However, qualitative techniques of data collection can also be used in this research paradigm (Saunders *et al.*, 2009).

The prime features of the present study are as follows:

1. On the basis of an extensive review of the literature, a conceptual model was designed by the researcher.

2. This helped in the formulation of research objectives and research questions.

3. A preliminary study based on the financing issues was conducted to explore real-time financing issues faced by SME owners.

4. The research instrument was prepared on the basis of information obtained from the preliminary study and the extant literature on SME financing.

5. The current study adopted the mixed-method approach.

    a. It binds the elements of the preliminary study with the main study.

b. It combines the information obtained from the survey and tests it with the help of secondary data extracted from PROWESS

Figure 4.1 Research Design Applied in Present Study
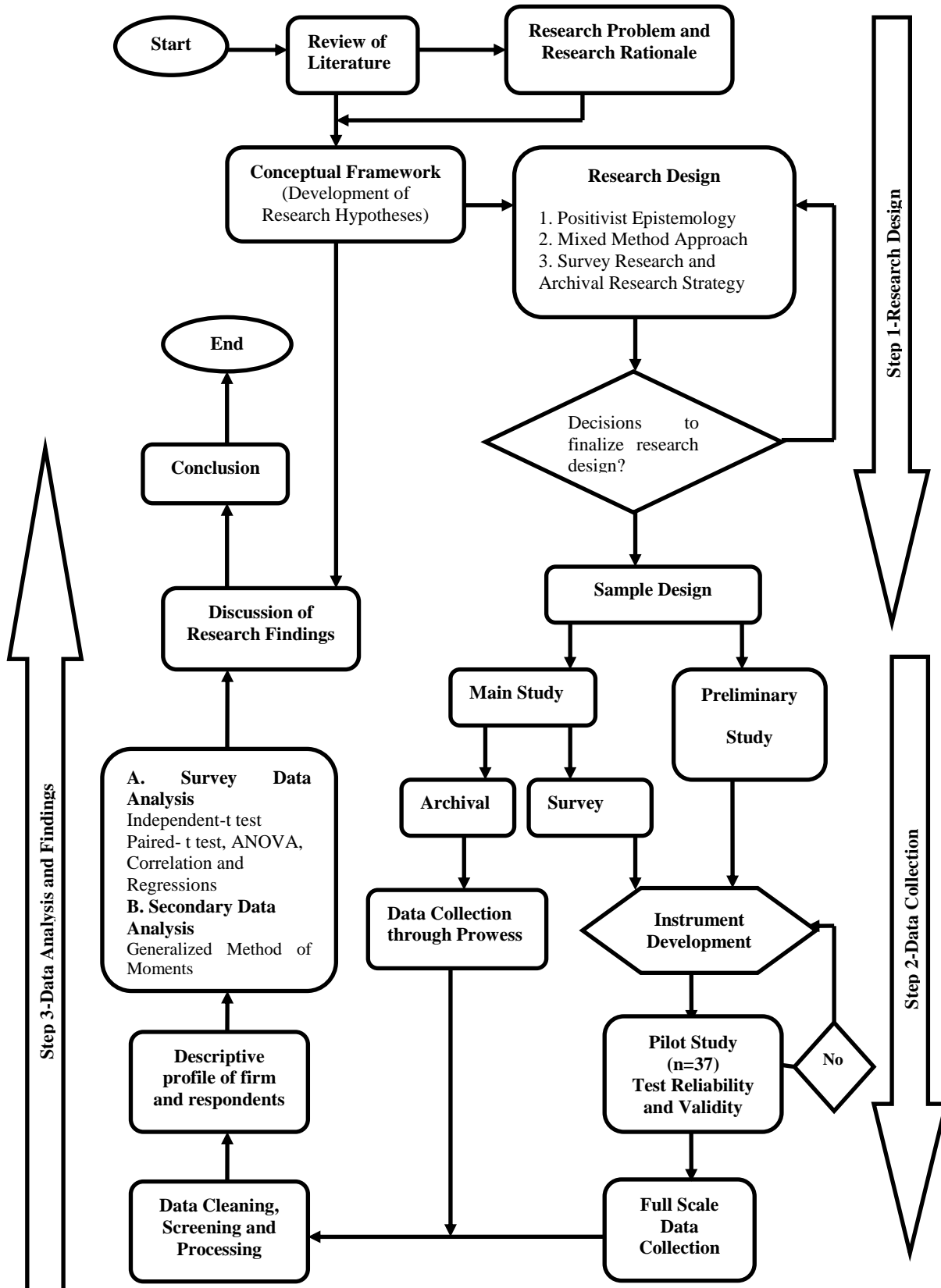
The study was broadly divided into two stages, namely, preliminary and main studies. The preliminary study was performed to understand the financing concerns of SME owners. Finally, the main study was designed on the basis of research objectives. Further, the data for the main study were collected from multiple sources. The next section explains the sample selection procedure, approach and techniques used in the analysis of the preliminary and main studies.

4.5. PRELIMINARY STUDY

The preliminary study was designed to explore the perception of SME owners about the various financing constraints faced by them. The information obtained from SME owners was used to develop the research instrument for the main study.

4.5.1 Sample Selection

The sample selected for the preliminary study was obtained from the Northwest region of India. The study adopted anon-probabilistic sampling technique, namely, judgemental or purposive sampling. It attempts to obtain a sample of convenient elements. According to Sekaran (2003), convenience sampling is a preeminent and the fastest way of obtaining essential information because interviewees are known to the researcher. Judgemental sampling is a form of convenience sampling in which population elements are selected based on the researcher's judgement.

A total of 44 SME owners were interviewed for the study. Previous studies that have applied the interview technique have used a relatively small sample as compared to that in the current study. For instance, Michaleas *et al.* (1998) interviewed 30 owner-managers. Moreover, the use of the convergent interviewing technique requires participants with varied demographic profiles and their proclivity towards the research issue. It is highly time consuming and demands a lot of effort in terms of time, cost and resources.

4.5.2 Data Collection

Interviews are often used in exploratory research for data collection. According to Gill *et al.* (2008), the purpose of the research interview is to explore the views, experiences, beliefs and motivations of individuals on specific matters. Interviews help in gathering detailed insights into a specific issue from target participants.

One of the promising techniques of qualitative research known as *"convergent interviewing"* was used in the study. This technique highlights only those topics which are significant to a wide range of individuals in a population. This technique takes care of all the issues pertaining to internal and external validities, reliability and

objectivity (Lincoln and Guba, 1985). The present study follows the convergent interviewing approach used by Jepsen and Rodwell on the employees of the local government council, Australia, in 2008.

Convergent interviewing focuses on participants whose major characteristics are different and it also focuses on the knowledge of the subject matter under examination. It is also imperative that subjects must have proclivity towards the research topic. Therefore, the prerequisite of convergent interviewing is selection of subjects.

The list of SME owners is obtained from the directories of MSME-Development Institutes (MSME-DIs) of Northwest India, namely, MSMEDI-Jaipur, MSMEDI-Agra and MSMEDI-Delhi. A comprehensive list of 112 SME owners was prepared based on the availability of their complete demographic information including gender, age, educational qualification and work experience. The final list of participants was prepared based on variability in their demographic information. Care was taken to include subjects having a range of demographic profiles. However, in the case of SMEs, agreeableness of owners to participate in the survey is compulsory. A formal letter conveying the details of the research and the information about the nature of interview, confidentiality, and timing was communicated to the subjects through e-mail. A follow-up mail was sent after 20 days for receiving confirmation from the owners. Finally, 44 respondents agreed to be present for the interview. The research process consisted of rounds of interviews, with each round comprising four interviews. The interviewees in each round were from different industries to maintain heterogeneity.

4.5.3 Research Technique

The interviews were semi-structured and consisted of a number of open-ended questions to deduce details of problems faced by the owners in procuring external funds. Moreover, open-ended questions provide multiple benefits in extracting qualitative information from the respondents. Open-ended questions allow an unlimited number of possible answers for an issue under investigation. Respondents can answer in detail so that the researcher can understand their thought process. This results in the discovery of unanticipated findings. These questions help in adequately answering complex issues.

Further, interview questions should be clear and focused so that the subject will find them convenient to answer. The wording of the questions should be comprehensible to the interviewees (Lazarfeld, 1954). It is also necessary to create an environment of trust between interviewer and interviewees so that subjects feel confident about raising a particular issue in the discussion (Jepsen and Rodwell, 2008).

Semi-structured interviews with SME owners were used to develop an understanding of the nature of the financing problem faced by them. Interview questions have been provided in annexure VIII. Interviews help researchers to explore their personal experiences and thereby obtain first-hand observations. Owners were asked questions pertaining to issues related to firm financing. This exercise was done to know the major obstacles faced by SME owners in procuring funds. The discussion was held for approximately 50-70 minutes each. All interviews were conducted by the same person to ensure consistency. The subjects for each round of interview were selected based on their availability for the interview. After each round of interview, a list of key issues was prepared by the researcher.

This insightful and thought-provoking exercise acts as a catalyst and thereby helps in analyzing the objective of the study more meticulously. Moreover, qualitative research is highly imperative in exploring the perceptions of people. It unfolds the data hidden in the opinion/thoughts of people. Survey research provides a plausible explanation of a particular kind of behaviour exhibited by people. It paves the way from known to unknown. Each interview was recorded and transcribed. The questions were asked in both Hindi and English to suit the comfort level of participants. The responses obtained in Hindi were translated into English with help of language experts to ensure the retention of the exact meaning of the statement quoted by the respondent.

4.6 MAIN STUDY (PRIMARY DATA)

The current study involves the application of triangulation. This is basically meant to analyse a concept from various angles. The main study was designed to test the hypothesis and generalize the results to the population. The main study was constructed based on research objectives. A structured questionnaire was used because this approach was widely applied in the previous studies conducted on financing preferences and practices of SMEs (Daskalakis *et al.*, 2013; Hussain *et al.*, 2006; He and Baker, 2007; Dogra and Gupta, 2009; Watson *et al.*, 2009; Mac an Bhaird and Lucey, 2011; Demirbas *et al.*, 2011; Borgia and Newman, 2012;

Mohammad Zabiri, 2013). Further, financial information of SMEs was extracted from the PROWESS database of the CMIE. This is basically required to examine the determinants of capital structure and the applicability of the capital structure theories on Indian SMEs. According to Bryman (2008), a questionnaire survey incurs low cost and can be distributed and returned quickly. Surveys can be a source of large-scale and reliable data, provided these are constructed and administered appropriately (Van der Stede *et al.*, 2005).

4.6.1 Research Location

Given the difficulty of surveying the large number of Indian SMEs, our focus was on SMEs in the northwest region of India. This region is strategically important because it lies in the upcoming Delhi Mumbai Industrial Corridor and offers a wide range of manufacturing and service industries. Moreover, this region covers the prime states of the country which includes Western Uttar Pradesh, Haryana, Delhi, Rajasthan and Gujrat. It also covers the majority of SME clusters in India.

4.6.2. Sample Selection

Collis and Hussey (2009) documented that "*larger the sample, better it will represent the population*". The sample consisted of micro, small and medium enterprises. The description of SMEs is based on the MSMED Act, 2006. The sample includes SMEs from all sectors, such as manufacturing, services and agri-based businesses, in the states of Uttar Pradesh, Haryana, Delhi, Rajasthan and Gujrat.

The sampling frame was derived from the information provided by the regional MSME-DIs of major clusters identified in the Northwest region of India, industrial directories of these clusters, exhibitions and seminars conducted by MSME-DIs and SME chamber of India. The major clusters examined in the northwest region are Delhi –Narayana and Okhla, Ghaziabad, Agra, Aligarh, Gurgaon, Jaipur, Kishangarh, Bhilwara, Ajmer, Udaipur, Jodhpur and Ahemdabad. The final sampling frame contains 2,789 SMEs collected from different sources. The sampling frame was prepared based on the availability of information regarding a firm's address, owner's contact number and e-mail address. These clusters are also in close proximity to the researcher's location and this has helped in minimizing efforts in terms of cost and time.

4.6.3 Data Collection

Data were collected with the help of a structured questionnaire. The questionnaire was prepared with the help of information retrieved from the preliminary study and

examination of the extant literature. The survey research conducted in this area includes the following work: Michaelas *et al.* (1998) in the United Kingdom; Hussain *et al.*(2006) and He and Baker (2007) in the United States; Wu *et al.* (2008) in China; Haileselasie Gebru in Tigray (2009); Mac an Bhaird and Lucey (2011) in Ireland; Demirbas *et al.*(2011) in Turkey; Lappalainen and Niskanen (2012) in Finland; Klonowoski (2012) in Poland; Borgia and Newman (2012) in China; Daskalakis *et al.* (2013) in Greece; and Mohamed Zabri (2013) in Malaysia. However, a few studies using the survey methodology focus on Indian SMEs (Dogra and Gupta, 2009; Singh *et al.*, 2009; Singh and Janor, 2013). Thus, survey research is evolving in the field of SME financing and will be appropriate to use in the context of the current study.

4.6.3.1 Questionnaire Development-According to Hair *et al.* (2007), a questionnaire is a structured framework developed to gather primary data from the selected respondents. Fowler (1993) stated that developing a questionnaire basically involves designing measures for the research instrument. The questionnaire was developed based on the findings of the preliminary study and the extant literature of SME financing. The researcher also reviewed the previous questionnaire on capital structure studies conducted on large firms. The previous studies consulted for the development of the research instrument are Graham and Harvey (2001), He and Baker (2007), Borgia and Newman (2012), Mohamad Zabiri (2013). Primarily, the study adopted the instrument of Mohamad Zabiri (2013) for the construction of the questionnaire.

Full consideration was given to all important aspects and issues related to this study. The survey method was chosen based on the research objectives and questions. The prime aim of our study was to identify and analyse the financial preferences and practices of SMEs. The research objectives served as guidelines for the researcher in gathering the information for the accomplishment of the study. It further helps in deciding the variables and type of measurement to be included in the study. A properly designed questionnaire helps in minimizing errors and thereby smoothen the task of both the researcher and the respondents (Sreejesh *et al.*, 2014).

According to Sekaran and Bougie (2009), a good questionnaire should focus on three basic principles which are summed up as follows:

1. Wording of content and purpose of questions, wording and language, type and form of questions (open or close ended), sequencing and classification of data.

2. Measurement in terms of categorization, coding, scales, reliability and validity.

3. Introduction to the respondents, instruction for completion, general appearance and length of the questionnaire.

Questions can be categorized as per the content, type and scale. Based on the content, questions can be of two main types, factual or subjective. The questions used to classify respondents by collecting their basic demographic information are referred to as factual questions. Questions used to capture the participants' feeling; attitude or opinions are known as subjective questions. The research instrument developed for the present study comprises both factual and subjective type of questions to acquire the desired information for the accomplishment of the research objective.

According to Dillman (2000), questions can be also classified into four types, namely, open- ended questions, close-ended questions with ordered choices, close-ended questions with unordered choices and partially close-ended questions. Open-ended questions provide freedom to participants to illustrate their answers themselves. Participants are not bounded by any specific set of responses. These types of questions are generally used in qualitative research. On the contrary, in the close-ended questions with ordered choice, respondents are provided with a specific set of responses and also asked to provide the most appropriate place on a specific continuum. In the third type of questions, participants must choose from among distinct, unordered categories by independently evaluating each choice and selecting the best possible situation. The final type of question is partially closed-ended, where answer choices are provided along with the flexibility to have the option of creating own responses.

Further, on the basis of the scale of measurement, questions can also be classified into different categories, namely, category questions, dichotomous questions, multiple choice questions, ranking questions, Likert scale type of questions and questions based on semantic differential. A brief description of each type of question is as follows:

1. Category questions are designed so that each respondent's answer can fit only one category. These questions are beneficial for collecting data for studying the subject's attributes.

2. Dichotomous questions have mainly two types of answers such as a yes/no, True/false and agree/disagree. These are mainly used to judge the respondents' characteristics like experience or to understand their opinion on an issue.

3. Multiple choice questions consist of an issue with a list of recommended answers. These solutions have one superior option in relation to others. The problem statement is known as stem and the possible solutions are known as alternatives.

4. Ranking questions ask the respondent to place things in order. They are helpful in discovering the relative importance of variables.

5. Likert scale types of questions are mainly used to collect opinion data. In this type of questions, respondents are asked how strongly she or he agrees or disagree with a statement or a series of statements. These statements are usually on a four-, five-, six- or seven-point rating scale.

6. Semantic Differential types of questions are used to determine underlying attributes. The respondent was asked to rate a single object on a series of bipolar rating scale.

The present study has widely used category questions, dichotomous questions, ranking questions, multiple choice questions and Likert scale type of questions.

4.6.3.2. Pre and Pilot Testing of Questionnaire-The first draft of the questionnaire was designed with the help of previous survey-based studies on SME financing and the inputs obtained from the preliminary study. The questionnaire was then sent to academicians working on SMEs and industry experts, including industry experts form MSME-DI. Academic Professionals include Professors, Associate Professors and Assistant Professors of reputed management institutes in India and abroad. The members of institute's Department Research Evaluation Committee also provided their valuable insights and suggestions in making the research instrument more informative. Industry experts consist of Deputy Director and Assistant Directors of MSME-DI and working entrepreneurs having an experience of >10 years. An expert panel was asked to check the content, wording, sequence and length of the questionnaire. After incorporating all the suggestions received from the panel of industry and subject experts, the survey questionnaire was made ready for the pilot study.

The pilot study was conducted on 37 SMEs. A list of 80 SMEs was obtained from the souvenir of the exhibition conducted by MSME-DI Jaipur on all India small scale

industries in September 2015. The list contained names, addresses, email addresses and contact numbers of SMEs and SME owners. The majority of the SMEs belong to the Northwest Region of the country. The questionnaire was sent to all the 80 SME owners. After 15 days, a follow-up mail was sent and the researcher also tried to contact them through the telephone. This was done to increase the participation of respondents in the pilot survey. Initially, only 10 responses were received through e-mail and another 27 responses were collected by personal administration of the questionnaire. This process was completed in two months.

The pre-test and pilot testing assisted the researcher in drawing attention to the overall layout of the questionnaire. It also tests the face and content validity of the questionnaire through the judgement of experts (Bryman and Bell, 2007; Sekaran and Bougie, 2009).It specifically highlights the issues related to the clarity of the questions and the time required to fill the questionnaire. The survey questionnaire was revised by incorporating the suggestions of the experts and the comments of respondents received during the pilot survey.

4.6.3.3 Reliability and Validity of Questionnaire-According to Collis and Hussey (2009), validity is the extent to which research findings accurately emulate the phenomenon under investigation. The current study used methodological triangulation as recommended by various researchers (Newman, 2005; Collis and Hussey, 2009). Triangulation identifies the potential issues with the data and confirms the validity of findings (Baker, 1994). Face validity was analysed with the help of the pilot study conducted on 37 SME owners in the Northwest region of India. It examines whether the ensuing analysis of data would be able to answer the research questions of the study. Content validity refers to the extent to which the research instrument provides adequate coverage of investigative questions (Saunders *et al.*, 2009). It was examined with the help of subject and industry experts of SMEs in India.

Reliability refers to consistency. A research instrument should be valid and also reliable. It is primarily concerned with the robustness of the research instrument. It assesses whether the questionnaire will produce consistent findings at different times and under different conditions (Saunders *et al.*, 2009). A pilot study helps in assessing the reliability of the data by correlating data collected with those from the same questionnaire collected under as near equivalent conditions as possible.

4.6.3.4 Layout and Content of Questionnaire-The survey questionnaire for this study was prepared in the form of a booklet. It was basically designed in English. The complete questionnaire consists of eight pages. According to Saunders *et al.* (2009), shorter questionnaires help in increasing the response rate as compared to longer questionnaires. Therefore, it is advisable to keep the questionnaire as short as possible. It has been further associated with background information and an explanatory cover letter to ensure the confidentiality of the responses (Smith and Danity, 1991). Clear instructions were provided for each questionnaire. The questionnaire was divided into five sections as follows:

1. Demographic information of firms and respondents
2. Financing preferences of firms
3. Financing practices of firms
4. Sources of finance availed and preferred at different stages of business
5. Factors affecting the firm financing decisions

The questionnaire involved close-ended questions with ordered choices and partially close-ended questions. For some questions, the respondents were asked to add any further information in the space given. The questions included an item entitled "others, please specify". This was done to encourage respondents for providing any other items that were not included in the study.

The first section describes firm features and respondent demographics, respectively. It mainly enlists category questions, dichotomous questions and multiple choice questions. These questions are primarily used to describe the features of the sampled firm and the respondent's characteristics. The ownership structure, operating industry, firm size, sales turnover and business stage cover the demographics of the sampled firm. The respondent's features were covered in the form of gender, age, education, experience and ownership. The respondents were also asked to list the motive of starting the business among the given choices and to specify the motive if it was not provided in the list. The final question of this section was asked to know the mode of acquisition of business.

The second section discusses the preferred financing sources. The questionnaire measures the preferences of respondents using a five-point scale where 1= very low preference, 2= low preference, 3= neither high nor low preference, 4= high preference, and 5 = very high preference. The next question in this section measures preference about financing terms (i.e., whether they prefer short-, medium-

or long-term financing) using the same five-point scale. This section also asks respondents to rank six sources of financing: (1) internal funding (owner's fund and retained earnings), (2) bank financing, (3) funding through government schemes, (4) external equity, (5) money lenders and (6) family friends and relatives.

The third section describes the current state of financing. The questionnaire uses a five-point scale to measure the proportion of current financing sources, where 1= not at all used, 2= somewhat used, 3= moderately used, 4= highly used and 5= extremely used. This section ends with a question on the proportion of funds procured through short-and long-term liabilities and owner's capital.

The fourth section presents the availed and preferred sources of funds at different stages of a firm's life cycle. Respondents were asked to indicate the availed and preferred source of finance listed in the questionnaire.

The final section of the research instruments highlights the factors affecting the capital structure decision of SMEs in India. This section asks respondents to measure the importance of firm-specific variables and macroeconomic variables in their financing decisions. The questionnaire uses a five-point scale to measure the importance of firm-specific variables and macroeconomic variables in their financing decisions, where 1= not at all important, 2= unimportant, 3= neither important nor unimportant, 4= important and 5= very important. The section ends with the statements measuring the agreeability of respondents regarding the relationship between various indicators of determinants with a firm's capital structure, where 1= strongly disagree, 2= disagree, 3=neither agree nor disagree, 4= agree and 5= strongly disagree. The cover letter along with the questionnaire has been attached in annexure I.

4.6.3.5 Questionnaire Administration- Dillman (2000) documented the importance of implementation procedures applied in distributing the questionnaire to the selected respondents. He further advocated that a well-designed questionnaire does not give any guarantee of a good response rate until and unless supplemented with appropriate data collection methods.

This study adopted various methods to collect responses from the SMEs. The sampling frame prepared by the researcher contains all the information of SMEs in the northwest region of India. The process of data collection started from November 2015 and continued till September 2016.

The researcher selected major clusters of the Northwest region of India. An email was first sent to all SMEs (2,789) in the sampling frame. The e-mail comprises a cover letter conveying the basic motives of research and the details of the questionnaire. A web link of the survey was sent along with the cover letter. The follow-up was done after 20 days. *The web survey* provided a very poor response rate and only 45 responses were received after the continuous follow-up and conveying the importance of the research to the SME owners.

A drop-off method was also used to collect the responses. The researcher returned on the same day or the next day to collect the completed questionnaires. Elanain (2003) also recommended the initial drop-off and later collection of the questionnaires to improve the response rate. However, out of 512 questionnaires distributed, only 37 were completed by the respondents.

Further, to increase the response rate, the researcher planned to *personally visit* the SMEs. A prior appointment was taken from the SME owners regarding their availability for the survey. A travel plan was made according to the proximity of various SMEs. This process has extensively improved the response rate to the desired extent. It resulted in the collection of 162 responses from all the chosen locations.

Further, 75 respondents agreed to provide their response on the *telephone.* This is due to the issues in personally approaching these respondents. The proclivity shown by the participants in providing their responses for the survey encouraged the researcher to collect data through this method. Moreover, the type of information required for the survey was not collected from anyone in the organization. Normally, financial personnel and more effectively the owners are able to provide such information for research purpose.

Table 4.1 provides the summary of responses collected from different sources. It also presents the response rate of respective data collection method. The overall response rate reflects a general unwillingness of SME owners to discuss their business affairs and represents a potential limitation of this study. However, a review of studies conducted through survey-based methods indicates that the average response rate for the studies that collected data from organizations was 13.31% (Krishnan and Poulose, 2016).

Table 4.1 Methods of Data Collection

This table presents the number of responses obtained through the various method adopted for data collection.

S.No.	Method of Data Collection	Number of Respondents	Usable Responses	Sampling Units	Response Rate
1	Web Survey	42	33	2789	1.18%
2	Drop-Off	48	39	512	7.62%
3	Personal Administration	162	162	162	100.00%
4	Telephonic Survey	75	75	730	10.27%
	Total	**327**	**309**	**2789**	**11.08%**

Table 4.2 summarizes sampling frame, methods of sample selection and total number of responses collected for the study.

Table 4.2 Summary of Sample Selection

This table outlines the process of sample selection and the response rate calculation.

	Criteria	Results
1	Region	North-West Region of India
2	Identification of major SMEs clusters	Delhi-Okhla and Narayana, Ghaziabad, Agra, Jaipur, Kishangarh, Bhilwara, Udaipur, Jodhpur and Ahemdabad
3	Source	MSME-Development Institute office of all major clusters, Industrial Directories available for these clusters, exhibitions and seminars conducted by MSME-DI and SME Chamber of India, Private agencies
4	Sampling Frame	2789
5	Data Collection Period	November 2015-September 2016
6	Data Collection Procedure	Online Survey, Drop-off, Telephone Survey, and Personal Administration
7	Total number of Responses Received	327
8	Total number of Usable Responses	309
9	Response Rate	11.08%

Table 4.3 Survey Based Studies on SMEs

This table lists the number of survey based studies performed on SMEs in a chronological order. It also presents the number of sampling units and the response rate of various studies.

S.No.	Name of the Study	Author	Year	Country	Sampling Units	Actual Sample	Response Rate
1	Financing Practices and Preferences for Micro and Small Firms	Daskalakis *et al.*	2003	Greece	567	191	34%
2	SME Financing in UK and China-A Comparative Perspective	Hussain *et al.*	2006	UK and China	NP	32	NA
3	Small Business Financing-Survey Evidence in West Texas	He and Baker	2007	USA	1050	310	30%
4	An Empirical Study on Capital Structure of SMEs in Punjab	Dogra and Gupta	2009	India	120	50	42%
5	Gender and SME Finance Gap	Watson *et al.*	2009	Australia	534	123	23%
6	Financing preferences of micro and small enterprise owners in Tigray-Does POH Hold?	Haileselasie Gebru	2009	Tigray	NP	120	NA
7	The Competitiveness of SME in A Globalized Economy-Observations From India and China	Singh *et al.*	2009	China and India	1200	241	20%
8	An Empirical investigation of the financial growth life cycle	Mac an Bhaird and Lucey	2011	Ireland	702	299	43%

S.No.	Name of the Study	Author	Year	Country	Sampling Units	Actual Sample	Response Rate
9	Owner Manager perceptions to barriers to innovation: Empirical Evidence from Turkish SMEs	Demirbas *et al.*	2011	Turkey	500	224	45%
10	Small and Medium enterprise and their Financing Patterns Evidence from Malaysia	Abdullah and Manan	2011	Malaysia	600	124	21%
11	The influence of managerial factors on the capital structure of small and medium-sized enterprises in emerging economies: Evidence from China	Borgia and Newman	2012	China	300	154	51%
12	Liquidity Gaps in Financing the SME Sector in an Emerging Market- Evidence From Poland	Klonowski	2012	Poland	500	262	52%
13	Financing Preferences of SMEs in Malaysia	Mohammad Zabiri	2013	Malaysia	500	143	29%
14	Determinants of SME financing Pattern in India-A Rotated Factor Analysis Approach	Singh and Janor	2013	India	NP	280	NA

NA=Not Available; NP= Not provided in the respective studies

4.6.3.6 Research Techniques-The primary data collected from the structured questionnaire were analysed with the help of statistical software SPSS 23.0. This was achieved with the help of various statistical techniques. The study applied univariate, bi-variate and multivariate analyses to accomplish the stated research objectives. The research techniques adopted in the present study are as follows-

1. **Descriptive statistics** enables a researcher to describe variables numerically. The features of a dataset are described on the basis of descriptive statistics. It is also referred to as summary statistics. The statistics used to describe a variable focus on two aspects:

   a. **Central Tendency-** This is the middle point of a distribution. Measures of central tendency are also called measures of location. The most commonly used measures of central tendency are *mode*, *median* and *mean.* The value that occurs most frequently is known as the *mode.* The middle value or mid-point after the data are ranked is known as the *median*. *Mean* is the most frequently used measure of central tendency. It is the value obtained by summing all elements in a set and dividing by the number of elements. Mean is used to exhibit the values of continuous data.

   b. **Measures of Variability-** These are statistical measures that indicate the distribution's dispersion. It includes range, variance or standard deviation and coefficient of variation. Range measures the spread of the data. It is basically the difference between the largest and smallest values. The difference between the mean and an observed value is called the deviation from the mean. The variance is the mean squared deviation from the mean. It basically exhibits the scattering of data points around the mean. A smaller variance means that data points are scattered closely around the mean and vice versa. The square root of variance is the standard deviation. The coefficient of variation is the ratio of the standard deviation to the mean.

   c. **Measures of Shape-** These also help in understanding the nature of the distribution. It is assessed by examining skewness and kurtosis. Skewness is a characteristic of a distribution that assesses its symmetry about the mean. Kurtosis is a measure of relative peakedness or flatness of the curve defined by frequency distribution. The kurtosis of

a normal distribution is zero. Measures of shape are important, because if a distribution is highly skewed or markedly peaked, then the statistical procedures that assume normality should be used with caution.

Hence, descriptive statistics was used to summarize all the variables considered in the current study. It is basically the first step in the analysis of data. This is followed by hypothesis testing. All the hypotheses related to the present study are explained in chapter 3. Based on the nature of data and scale of measurement, both parametric and nonparametric tests were applied for the hypothesis testing. Parametric tests assume that variables of interest are measured at least on an interval scale, whereas nonparametric tests assume that variables are measured on a nominal or ordinal scale. The details of various statistical measures are as follows:

2. **Independent t-test-**Parametric tests provide inferences for making statements about the means of parent populations. A t-test is commonly used for this purpose. This test is based on Student's t-statistics. The t-statistics assumes that the variable is normally distributed. The mean is known, and the population variance is estimated from the sample. Basically, the samples drawn from different populations are termed independent samples.

The current study applied the independent t-test for the two samples for examining the difference between levels of financing preferences across firm- and owner-/manager-specific characteristics.

3. **F test** –It is used to test whether two populations have equal variance or not. The present study applied the F test to check the equal variances of financing preferences and practices across firm size of the selected sample. This is basically done to test the assumption of normal distribution which is illustrated in chapter 6 of Data Analysis and Research Findings

4. *Paired Sample*–This is a test for differences in the means of a paired sample. In this test, observations are not selected from two different samples but the observations are paired so that the two sets of observations relate to the same respondents. A sample of respondents may rate two mutual funds or evaluate firms at two different times or indicate the relative importance of two attributes of a financial instrument. The difference in these cases was examined by a paired sample t-test.

The present study investigates the difference between financing preferences and practices of Indian SMEs by deploying the paired sample t-test.

5. **Analysis of Variance (ANOVA) -** It is a statistical technique for investigating the differences among means for two or more populations. It is used for examining the differences in the mean values of the dependent variable associated with the effect of the controlled independent variables. ANOVA must have a dependent variable measured on either the interval or ratio scale. There must also be one or more independent variables. Independent variables must be categorical in nature. Categorical independent variables are also called factors. One-way ANOVA involves only one categorical variable. If two or more factors are involved, analysis is termed n-way analysis of variance.

Assumptions in ANOVA

a. The categories of the independent variable are assumed to be fixed. Inferences are made only to specific categories.

b. The error term is normally distributed with a zero mean and constant variance.

c. Error terms are uncorrelated.

All the assumptions of ANOVA were tested before its application in the study. This is explained in detail in chapter 6 pertaining to data analysis and research findings. *The present study used a one-way ANOVA to examine the difference between financing preferences across firm- and owner-/manager-specific characteristics.*

6. **Kruskal-Wallis Test-** This is also called "one way ANOVA on ranks." This test is a non-parametric test and it is used when there is one nominal variable and other is a measurement variable. This is applied when measurement variable does not meet the assumptions of parametric tests or ANOVA. This test statistic has a distribution from the family of chi square distributions. Chi square is defined by the single value, the degrees of freedom which is one less than the number of groups under examination

The present study used the Kruskal-Wallis test to determine difference between firm specific and country specific factors for micro small and medium enterprises. The respondents have asked to indicate the importance of the firm and country specific factors in the financing decisions of their firms. Since the variables do not meet the parametric assumptions of ANOVA, therefore, its substitute in nonparametric tests has been applied in the study.

7. Correlation and Regression- In the words of McGee, *"Correlation is a simple but powerful way of looking at the linear relationship between two metric variables. Multiple regressions extend this concept, enabling the researcher to examine the relationship between one variable and several others.*

Product Moment Correlation is the most widely used statistic; it summarizes the strength of association between two metric variables. It is an index used to determine whether a linear or straight line relationship exists between two variables. It also indicates the degree to which the variation in one variable is related to the variation in another variable. It is also known as Pearson correlation coefficient or bi-variate correlation. It is applied to test the nature, direction, and significance of the bi-variate relationship of the variables (Seekaran and Bougie, 2009). Bryman and Cramer (2008) also attested the requirement of bi-variate analysis in explaining and contributing to the construction of theories. This includes measures of association between two variables linearly related to each other regardless of their measurement (Miles and Shevlin, 2001).

Correlation assesses the changes between the variables without explaining the magnitude of change. It implies that correlation coefficient measures the strength of relationship between pairs of variables (Saunders *et al.* 2009; Field, 2009). This measurement can take any value between -1 and +1 to represent and quantify the strength of the linear relationship between two ranked or numerical variables (Collis and Hussey, 2009; Saunders *et al.* 2009). A coefficient of +1 indicates perfectly positive correlation, while -1 presents the perfect negative correlation among the variables. A coefficient of zero is the indication of absence of relationship among the variables. Further, it is also essential to examine the statistical significance of the correlation measure to ensure that the association is not due to the random variations in the sample (Saunders *et al.*, 2009).

The current study applies the Pearson coefficient of correlation to assess the association between financing preferences and practices of the firm. The correlation coefficients provide a conceptual foundation for regression analysis.

Regression analysis is a statistical procedure for analysing associative relationships between a metric dependent variable and one or more independent variable. It examines the following:

a. *Existence of a relationship between two variables;*

b. *Strength of the relationship between two variables;*

c. *Form of the relationship between two variables;*

d. *Value (predicted) of the dependent variable and*

e. *Contribution of a specific variable or a set of variables by controlling for other independent variables.*

Regression analysis is concerned with the nature and degree of association between variables and does not imply or assume causality. Multiple regressions develop a mathematical relationship between two or more independent variables and an interval scaled dependent variable. The general form of the multiple regression models is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots\dots\dots\dots + \beta_k X_k + e \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots eq.\ 4.1$$

Where, Y= dependent/ criterion /outcome variables

$X_1, X_2\ X_k =$ *independent/predictor/explanatory variables*

$\beta_0=$ *constant*

$\beta_1, \beta_2, \beta_k=$ *regression coefficients of independent variables*

e= error term

which is estimated by the following equation:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots\dots\dots\dots + b_k X_k \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots eq.\ 4.2$$

where, Y is the estimated or predicted value of Y and b_1, b_2 and b_3 are the estimators of β_0, β_1, β_2 and β_3 respectively; a is the estimator of β_0

Assumptions of Regression Analysis

The regression model makes several assumptions in estimating the parameters in significance testing:

a. The error term should be normally distributed.

b. The means of all normally distributed error terms must lie on a straight line.

c. The mean of the error term is zero.

d. The variance of the error term should be constant.

e. The error terms should be uncorrelated.

The regression technique is applied after testing all the above mentioned assumptions.

According to Field (2009), there are basically three methods for selecting explanatory variables to be included in the model namely hierarchical, forced entry and stepwise method. Hierarchical method involves the selection of predictors on the basis of their importance. Hair *et al.*, 2007 suggests that the importance of independent variables should be based on the theoretical justification rather than empirical confirmation. The predictors are chosen on the basis of their theoretical validation. On the contrary a forced entry method allows the entry of variables without considering their order of importance. Stepwise methods are used to determine the relationship between level of financing preferences and SME owner/manager features (age, gender, education, work-experience and ownership status). The purpose of stepwise regression is to select the variables that account for most of the variation in the dependent or criterion variable. The predictor variables are entered or removed from the regression one at a time. There are several approaches to stepwise regression:

    a. Forward Inclusion- Initially, there are no predictor variables in the regression equation. Predictor variables are entered one at a time and this is based on their contribution to the explained variance.

    b. Backward Elimination-Initially, all the predictor variables are included in the regression. These are removed one by one at a time on the basis of the F ratio.

    c. Stepwise Solution- This involves a combination of forward inclusion with the removal of predictors that no longer meet the specified criterion at each step.

In the present study, two stage regression analyses have been executed. The first stage has applied hierarchical and forced entry methods. Selection of the explanatory variables is based on the earlier literature and the results from the measures of correlation between dependent and independent variables. All the predictors have been entered into the model and the selection has been based on the importance variable's ability to best describe the variance of the dependent variable. The important predictor variables are selected and then forward stepwise regression is applied to examine the contribution of each explanatory variable. The final regression model has been analysed on the basis of forward stepwise regression. This has been discussed meticulously in the subsequent section related to the determination of relationship between financing preferences and owner/managers' attributes presented in chapter 6 of this study.

4.7 MAIN STUDY (SECONDARY DATA)

The final research objective of the study was to investigate the factors determining the capital structure decisions of firms. The primary survey assisted the researcher in understanding the opinion of respondents regarding the relationship between leverage and firm-specific determinants. Their opinion was further tested with the help of secondary data to provide information about the required financial variables.

4.7.1 Data Source

The data of variables were taken from the electronic database PROWESS of CMIE for the period 2006-2013. The sample was chosen as per the MSMED Act, 2006, which states that manufacturing firms having an investment up to 100 million are considered as SMEs and those with an investment up to 50 million are Service Sector SMEs. SMEs belonging to the financial industry are excluded from the sample as financial statements of financial firms are different from those of nonfinancial firms and the leverage of financial firms is firmly dominated by distinct investor schemes (G Noulas and Genimakis, 2014). The firms chosen for the study must have the following prerequisites:

1. Firms must have investment in the plant and machinery as per the guidelines of the MSMED Act, 2006, for the selected period.

2. They should not have inconsistent financial data for the chosen period of 9 (2006-2014) years.

3. Sample firms must belong to the non-financial sector as defined by the Prowess Database.

Accordingly, several firms were discarded for which data were not available for the whole period. Moreover, the use of balanced panel data prohibits the entry of any firm with a single missing data in any of the chosen year. Thus, the final sample comprises 537 non-financial firms out of which 188 firms belong to the manufacturing industry and 349 firms belong to the service industry. Table 4.4 provides a summary of the extraction of data from Prowess.

Table 4.4 Sample Selection Procedure

This table presents sample selection procedure for the secondary data extracted from PROWESS.

Particulars	No. of Firms
Total number of Firms after applying the limit of Investment in plant[a] and machinery and equipment[b] (Rs 100 millions)	3734
Less: Firms Operating in Financial Industry	504
Remaining non financial firms	3230
Less: Service[c] firms having investment in equipment above Rs 50 million	534
Remaining Non-Financial Firms	2696
Less : Firms which are not consistent with the definition of SMEs during the whole period of analysis[d]	1376
Remaining firms	1320
Less: Firms with incomplete data for the parameters under study	783
Total Number of Firms	**537**

a- For Manufacturing SMEs the investment should be made in the plant and machinery and the limit is up to Rs 100 million as per MSME Act 2006.

b- For Service SMEs the investment should be made in equipments and the limit is up to Rs 50 millions as per MSME Act 2006.

During the process of the initial selection of sample, service firms having investment in the equipment more than Rs 50 million were also included, therefore, as per the definition of SMEs, it is necessary to exclude these firms form the final sample.

d- There are many firms in the PROWESS data base whose investment exceed the limit of SME after a period or so, therefore these firms are also excluded from the analysis to maintain the specificity of the study.

4.7.2 Research Variables

The final objective of the study was accomplished by examining the relationship between firm-specific variables and leverage ratios. Leverage ratios are the dependent variable for the current study. These were measured in three ways, namely, long-term debt (LTD), short-term debt (STD) and total debt (TD). In addition to the criterion variables (LTD, STD and TD), the study used eight predictor variables: profitability, liquidity, growth, age, size, non-debt tax shield, tangibility and cash flow. The research variables are described as follows:

4.7.2.1 Dependent Variables-Leverage was taken as a proxy for capital structure decisions. The sensitivity of debt was measured by decomposing it into different forms. As the SMEs exhibit a higher dependence on short-term debt, the analysis considering only debt will yield limited explanatory power (Bevan and Danbolt,

2002). Allen *et al.* (2012) also confirmed the use of short-term debt by SMEs for financing business operations. Therefore, it is essential to examine leverage through different components. Moreover, the previous studies have also demonstrated significant differences, when different measures of debt were used in the investigation. The present study addresses this issue by independently examining the factors affecting different forms of leverage. It helps in developing a better understanding of the impact of predictor variables on criterion variables. Therefore, the dependent variable for the present study is leverage and it is defined in three different ways to test the robustness of the results. Leverage 1 (Lev 1) is calculated by long-term debt scaled by total assets and leverage 2 (Lev2) is defined as short-term debt scaled by total assets. Finally, leverage 3 (Lev3) is measured by total debt scaled by total assets.

4.7.2.2 Independent Variables-The present study has included all the possible firm-specific factors that have been used in the literature and related to capital structure determinants of SMEs. The firm-specific variables, chosen based on the literature and theoretical underpinnings, are profitability (prof), size, tangibility (tang), growth (gr), non-debt tax shield (ndts), age, liquidity (liq) and cash flow (cf). All these measures were frequently used by various researchers in the literature on capital structure determinants of SMEs. The measures of various independent variables (see table 4.5) are summed up below-

a. **Liquidity (LIQ)** is the ability of a firm to meet out its short-term liabilities. It is the ratio of current assets and current liabilities. Current assets are mainly in the form of cash, inventory, receivables, etc., whereas current liabilities consist of trade payables, short-term loans, etc.

b. **Non-Debt Tax Shield (NDTS)** is the substitute of tax shield obtained from the debt taken by a firm. It is measured by depreciation scaled down by total assets.

c. **Profitability (PROF)** as discussed in chapter 3 is one of the popular and widely used variable in previous capital structure studies. It is basically the measure of operating profit of a firm. It is measured by earnings before interest tax depreciation and amortization scaled by total assets of a firm.

d. **Tangibility (TANG)** is defined as fixed assets scaled by total assets. It is a measure of physical fixed assets owned by a firm. It is also among the essential variables that determine the capital structure of firms.

Table 4.5 Research Variables and Their Measurement

This table presents the summary of firm specific dependent and independent variables

related with the capital structure determinants of SMEs.

Nature of Variables	Symbol	Measures of Variables	Definition of Variables	Previous studies that have used these measures
Dependent	Lev1	Long Term Debt/Total Assets	LTD includes borrowings from banks (secured and unsecured), financial institutions, central and state government, borrowings through debentures and bonds, fixed deposits and hire purchase loan and Total Assets include both fixed and current assets	Cassar and Holmes (2003);Mateev *et al.* (2013)
	Lev2	Short Term Debt/Total Assets	STD includes borrowings from banks (secured and unsecured), Inter-corporate loans ,account payables and funds through commercial papers and Total Assets includes both fixed and current assets	Cassar and Holmes (2003);Mateev *et al.* (2013)
	Lev3	Total Debt /Total Assets	Includes both short term and long term debt components and total assets of a firm	Cassar and Holmes (2003);Mateev *et al.* (2013)
Independent	LIQ	Current Asset/Current Liabilities	Current assets includes debtors, inventories, cash, all other marketable securities and current liabilities includes creditors, short term bank loan and other debt for the period of less than 1 year	Kaur and Rao (2009); Mossa *et al.*(2011)
	NDTS	Depreciation/ Total Assets	Taken from PROWESS database per se	Huang and Song (2006); Chakraborty (2010)
	PROF	PBDITA/Total Assets	Taken from PROWESS database per se	Chakraborty (2010); Bhaduri (2002)
	SIZE	Log of Sales	Taken from PROWESS database per se	Chakraborty (2010); Daskalakis & Psillaki (2008)
	TANG	Fixed Assets/ Total Assets	Taken from PROWESS database per se	Huang and Song (2006); Mateev *et al.* (2013)
	AGE	From year of Incorporation	Natural Log of the years	Mac an Bhaird and Lucey (2010)
	OCF	Profit after tax + Depreciation/ Total Assets	Taken from PROWESS database per se	Mateev *et al.*(2013)
	GR	% change in Sales on YOY basis	Value of Sales are taken from PROWESS database per se	Chakraborty (2010); Ngyuen and Ramachandran (2006)

g. **Growth (GR)** is the measure of the percentage increase in a firm's total sales on a year on year basis.

h. **Size** of the sampled firms is measured by taking the natural log of total assets.

i. **Age** of the sampled firms is measured by taking the natural log of the number of years from the year of incorporation.

j. **Operating Cash Flow (OCF)** is measured by adding depreciation to PAT and then dividing it by total assets.

In this study, leverage was used as a substitute for financing and the independent variables are firm-specific factors that are supposed to influence the leverage on the basis of arguments provided by capital structure theories. The results are further validated by previous empirical studies. Therefore, the study was developed on the grounds of capital structure theories and assumptions are tested to identify the prime firm-specific factors influencing capital structure decisions.

4.7.3 Research Techniques

The present study used panel data regression to examine research hypotheses. In the last two decades, panel data have become central in quantitative studies. It has become the most active and innovative in the literature of econometrics. The main limitation of basic regression is that it is based on the assumption that parameters do not vary across sample observations. On the contrary, panel data allow variables to vary in some systematic and /or random way across partitions of the sample data or even from observation to observation (Shahimi *et al.*, 2006). The panel data technique is described in the following section:

4.7.3.1 Panel Data- A panel dataset contains observations on multiple entities (individual, firms), where each entity is observed at one point in time. According to Hsiao (2003), a panel data set involves a given sample of units over time and thus provides multiple observations on each unit in the sample. Panel data have both space and time dimensions. The number of studies on panel data has increased tremendously during the past decade due to many useful properties of these data sets (Hsiao and Hsiao, 2006). Panel data sets for economic research have several advantages over cross-sectional or time series data sets. The prime benefits of using panel data include the following:

1. Panel data are associated with a number of individuals, firms, countries, etc., over a time period. Hence, there is a possibility of heterogeneity in these units. Panel data provide the possibility of learning an individual's behaviour by observing the behaviour of others. Therefore, it is possible to obtain a more accurate description of an individual's behaviour.

2. Panel data provide a large number of data points (N*T, where N stands for the number of firms and T stands for the time period) and thus increases the degree of freedom and lessens the problem of multi-collinearity among explanatory variables. It thereby improves the efficiency of econometric estimates.

3. Panel data examine the repeated cross-section of observations, and therefore, these data sets are better suited to study the dynamics of adjustments.

4. Panel data are better able to identify and measure the effects that are simply not detectable in pure cross-section or pure time series data and thereby it also allows controlling for unobserved variables.

5. Panel data models have allowed one to construct and test more complicated behaviour models as compared to purely cross-section or time series data.

The study uses balanced panel data to determine factors driving the decisions of SMEs in India. In this study, SMEs represent the cross-sectional part of the panel and the time period is 9 years. The dataset belongs to the micro-panel category and thus it is more précised to use on firm's dimensions as compared to time period.

4.7.4 Panel Data Regression

Panel data can be analysed by using static panel and dynamic panel techniques. Static panel techniques do not incorporate any temporal dependency of the dependent variable. In contrast, dynamic estimators have greater control of endogeneity; greater control of possible collinearity between explanatory variables; and greater effectiveness in controlling effects caused by the absence of relevant explanatory variables. Further, dynamic panel estimators also aid in determination of the level of adjustment of current debt towards a target debt ratio, which is in line with the dynamic nature of empirical capital structure decisions. This study used the dynamic panel data estimation technique to analyse the variables affecting the leverage of SMEs in India. The panel data methodology was used to test the empirical hypothesis and controls for the firm's heteroscedasticity and corrects for autocorrelation among the variables that are involved in the study

All things considered, when the lagged dependent variable is taken as independent variable, one can use only GMM, because fixed and random effects become irrelevant. Leverage decisions of SMEs are majorly governed by the previous decision and thus it becomes imperative to take the first difference of the dependent variable to judge its effect on the current leverage decisions. Therefore, dynamic panel data models are helpful when the criterion variable depends on its own past realizations. This makes strong ground for using the GMM approach for analysis rather than other approaches.

GMM was used in the study to test the empirical hypothesis discussed in chapter 3. It is one of the most widely used estimation method in economics and finance and does not require a complete knowledge of data distribution. According to Wooldridge (2001), theory of generalized method of moments explains the use of two sets of population moment conditions in a manner that minimizes asymptotic variance.

It undertakes the effect of instrumental variables which is not taken by other techniques of panel data estimation. It also controls for the problem of endogeneity and works well with non-normally distributed financial data. The panel estimation of three models was done using the GMM estimation method. The general form of the equation used to estimate the model adopted in the study is as follows:

$$\textit{Lev}_{it} = \alpha_0 + f\,(\textit{Lev}_{it\text{-}1}, \textit{Prof}_{it}, \textit{Tang}_{it}, \textit{Size}_{it}, \textit{GR}_{it}, \textit{Ndts}_{it}, \textit{Age}_{it}, \textit{CF}_{it}, \textit{Liq}_{it}) + n_i + n_t + \varepsilon_{it} \ldots\ldots eq\ 4.3$$

where Lev_{it} is the leverage of firm i in year t, n_i is the unobserved firm-specific effects, n_t is the time-specific effects and ε_{it} is the error term. Unobservable characteristics of the firm that have a significant effect on the firm's leverage are captured in n_i. n_t captures the effects of macroeconomic factors such as inflation, interest rates, etc., which vary across time but remain the same for all firms in a given year.

Ordinary least square (OLS) estimation is biased and inconsistent as $\text{Lev}_{it\text{-}1}$ is correlated with α_0. In this situation, Arellano and Bond proposed a method that makes use of all possible instruments. Generalized method of moments used moment conditions generated by the lagged levels of the dependent variable (Hansen, 1982).

Therefore, GMM results in consistent and unbiased estimates if the error terms ε_{it} are serially uncorrelated (Honore and Hu, 2004). Two-step GMM estimation was used in this study because it is more asymptotically efficient than one-step GMM estimation when disturbances are expected to exhibit heteroscedasticity in large

sample data with a relatively long time period (Arellano and Bond, 1991; Blundell and Bond, 1998).

Further, to test the validity of the instruments used in models, Arellano and Bond (1991) proposed three tests. The first is to test the presence of serial correlation in the disturbances. Under the null hypothesis of no serial correlation, the test statistics are distributed as a standard normal. To test whether serial correlation of order 1 is in level or not, one requires checking for correlation of order 2 in case of significant differences obtained for order 1. The validation of instrumental variables is obtained, when the null hypothesis of this test is not rejected.

The next is the Sargan test (Sargan, 1958) which verifies the validity of the instrument's subsets. This test is based on the assumption that residuals should be uncorrelated with instruments. If the computed chi-square does not exceed the critical chi-square value, the null hypothesis is not rejected. This implies that instrumental variables are uncorrelated with the error term and this thereby ensures the validity of chosen instruments.GMM was thus found suitable for determining major factors of capital structure decisions. The capital structure determinants of manufacturing and service SMEs have separately been studied. This was done to understand the variability in the determinants due to industry effects.

4.8 CONCLUSION

This chapter summarizes the research methodology adopted in the current study. It provides justification for the research approach, choice and strategy adopted to accomplish the desired research objectives. It also provides a detailed description of the sampling frame and data collection method used in the study. The research design incorporates methodological triangulation. Qualitative inputs obtained from the preliminary study were used to design and explain the findings of the main study. The study instills the mixed method and multiple method approach for implementing the conceptual framework. The main study integrates the data from both primary and secondary resources. Various statistical techniques were used to examine the data from different angles. In the subsequent chapters (5, 6 and 7), the findings of the preliminary and main study will be discussed.

CHAPTER – 5

FINDINGS OF THE PRELIMINARY STUDY

CHAPTER 5

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Preface

This chapter presents the findings obtained from the preliminary study conducted on 44 SME owners. It begins with the description of the sample and includes the demographic profile of participants and the firms under investigation. It exhibits the gender, age, working experience and the education of the respondents. It also presents the size (as per the MSMED Act, 2006), legal status and the operating industry. The next section gives the findings of the preliminary study on the basis of "convergent interviewing". It highlights the key issues and classifies them according to the nature of the funding gap. The final section concludes the chapter and relates the findings in accordance with the research objectives.

5.1 INTRODUCTION

A preliminary study was performed to conceptualize the actual financing constraints faced by SMEs. The study was designed in the backdrop of financing issues of Indian SMEs. The findings of this chapter supported the researcher in designing the main study. Hence, this evidently implies the significance and importance of the preliminary study.

5.2. SAMPLE DESCRIPTION

The sample selected for the final rounds of the interview represents 44 SME owners from different industries with a diverse background. Eleven rounds of interviews were conducted. Each round of interview consisted of 4 respondents. The demographic details of subjects are summarized in Table 5.1. The details of the respondents are presented in the sequence of interview rounds conducted by the researcher. Each round consisted of four respondents. The panel of rounds was prepared based on demographic information of the respondents. Care was taken in the selection of respondents in each panel. The researcher has attempted to place respondents with variable demographic characteristics in the same panel. This was done to obtain common financing issues among different industries. The majority of the participants were male (93%), among whom 68% have a working experience of >10 years. Most of the participants have a graduate (44%) and a postgraduate (45%) degree. The study includes all types of SMEs as per the classification of the MSMED Act, 2006.

It includes 50% small-, 38% micro- and 11% medium-sized SMEs. More than 50% SMEs are sole proprietorship concerns and the rest are in the category of private limited (38%) and partnership (9%) firms.

Table 5.1 Profile of Respondents

This table represents the firm and respondent specific features. Column 1 represents rounds of interviews (R) , column 2 shows the number of subjects (S) followed by the gender (G), age, experience, education, firms size, legal status (SP= Sole Proprietorship, PL= Private Limited, PT= Partnership)and industry of firms under investigation.

R	S	G	Age	Experience	Education	Firm Size	Legal Status	Industry
1	S1	M	55	40	Graduation	Small	SP	Carpet Manufacturing
	S2	M	47	22	School Certificate	Micro	SP	Paper tubes
	S3	F	34	4	MBA	Small	PL	Food Processing
	S4	M	52	30	Post Graduation	Small	PL	Pharmaceutical
2	S5	M	54	34	Graduation	Small	PL	Chemical Industry
	S6	M	43	15	Graduation	Small	SP	Export home furnishing items
	S7	F	38	2	Graduation	Micro	SP	Gluten free Products
	S8	M	45	8	Graduation	Micro	SP	Garments
3	S9	M	42	10	Graduation	Micro	PT	Chemical Industry
	S10	M	33	5	Post Graduation	Medium	PL	Agro Based Industries
	S11	M	25	4	Post Graduation	Small	SP	Balls and Bearing
	S12	M	35	12	Graduation	Micro	SP	Crafts
4	S13	M	44	18	Post Graduation	Small	PT	Jems and Jewellery
	S14	M	32	4	Graduation	Micro	SP	Packaging
	S15	M	45	25	Diploma	Small	SP	Furniture
	S16	M	27	5	Company Secretary	Micro	PT	Service
5	S17	M	30	15	Post Graduation	Small	SP	Chemical industry
	S18	M	28	7	Post Graduation	Small	SP	Infrastructure
	S19	M	43	10	School Certificate	Micro	SP	Soap Manufacturing
	S20	M	22	1	Graduation	Micro	SP	Furniture and fittings

R	S	G	Age	Experience	Education	Firm Size	Legal Status	Industry
6	S21	M	52	35	Post Graduation	Medium	PL	Polymer
	S22	M	45	25	Post Graduation	Micro	PL	Medical Service Equipments
	S23	M	37	15	Graduation	Micro	SP	Ball and Bearings
	S24	M	61	40	Post Graduation	Small	SP	Carpets
7	S25	M	39	17	C.A.	Small	PL	Textiles
	S26	M	28	4	Graduation	Small	PL	Pharmaceutical
	S27	M	43	25	Graduation	Micro	PL	Healthcare
	S28	M	58	27	Diploma	Micro	SP	Lock manufacturing
8	S29	M	38	12	Graduation	Small	SP	Lock manufacturing
	S30	M	27	4	Post Graduation	Small	PL	Waste Management
	S31	M	21	1	Post Graduation	Micro	SP	Distribution of electrical goods
	S32	M	29	5	Post Graduation	Small	SP	Food &Beverages
9	S33	M	51	20	Post Graduation	Micro	SP	Electric Wires
	S34	M	39	12	Post Graduation	Medium	SP	Packaging
	S35	M	41	20	Post Graduation	Small	PT	Marbles
	S36	F	33	8	Post Graduation	Small	PL	Handicrafts
10	S37	M	44	30	Post Graduation	Micro	SP	Filters
	S38	M	36	18	Graduation	Small	SP	Water Treatment
	S39	M	48	12	Post Graduation	Small	PL	Rubber & Plastic
	S40	M	37	18	Graduation	Small	PL	Lock manufacturing
11	S41	M	56	32	Graduation	Medium	PL	Bearings rollers
	S42	M	67	40	Post Graduation	Medium	PL	Dairy Products
	S43	M	41	11	Graduation	Micro	SP	Marbles
	S44	M	47	22	Diploma	Small	SP	Bearings

The study incorporates different industries operating in the manufacturing and service sectors. It includes ball and bearings, plastic, carpets, handicraft, food processing, garments, Jems and Jewellery to be precise.

5.3. ANALYSIS OF RESULTS

According to Brown and McNaughton (2003), one of the most contributing factors governing the growth of the SME sector is access to external finance. SME finance is mainly restricted by the lack of an enabling environment. Regulations are insufficient, financial infrastructure is inadequate, lending capacity and tools are lacking, SME management skills need to be improved, financial transparency needs to be encouraged, and the availability of collateral is scarce. Banks and financial institutions are also not equipped to offer sustainable and profitable SME banking products.

The findings of semi-structured interviews were analysed by identifying themes. Before identification of themes, different codes were constructed by carefully analysing the transcripts. According to Ryan and Bernard (2003), qualitative data were analysed by using codes and codes were attached to different themes. The study developed nineteen different codes which are studied under four major broad themes. These themes are based on the structure of the problem under examination. Financing hurdles faced by SMEs constitute the financing gap. Availability and accessibility of financial resources decide the type obstacle faced by firms. The interview approach was used to analyse the financing hurdles faced by SME owners.

However, the convergent interviewing technique focused more on key issues rather than on details. An issue becomes a key issue when it is raised by more than one participant in each round of the interview. If the issue is raised or supported by a single subject in the interview round and in later rounds of interviews it has converged with the support of other subjects, then the issue will also become a key issue to be pursued in the current study. In this way, the identified key issues were classified into broad themes as per the objective of the study. Table 5.2 presents the   major themes and codes identified in the study.

Table 5.2 Details of Convergent Interview

This table represents the issues raised during convergent interview. Here "R" indicates the issues raised by researcher and "S" indicates the issues raised by subjects. "Highlighted portion" depicts the convergent results.

Themes	Issues	Rounds- 1				2				3				4				5				6			
		S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24
Demand Gap	Cost of Credit	R		R	R	R		R	R			R		R		R						R			R
	Complex Collateral Requirement			R			R	R		R		R			R		R	R				R		R	
	Cumbersome Procedures		R	R	R			R	R			R		R	R	R	R							R	
	High Moratorium Period	R			R		R		R	R		R	R	R				R	R		R	R	R		
	Self Abstaining for External Funds		R	R		R			R		R			R	R				R		R				R
	Past Experience					S	S					S		S								S			S
	Inefficient Information Dissemination from the authorities	S		S	S				S			S				S								S	
Knowledge Gap	Less awareness about the available financial resources	S	S		S			S	S	S			S	S						S					S
	Lack of Management Professionals	R						R	R					R	R				R						R
Supply Gap	Preparation &Presentation of Financial Statement		S							S		S				S		S							S
	Financial Performance	S		S		S								S		S		S			S	S		S	S
	Information Asymmetry	R	R			R	R		R		R		R	R				R				R		R	R
	Creditworthiness	S	S			S			S			S	S			S		S		S				S	
	Bureaucratic Environment			R			R			R		R			R			R				R		R	
	Scarcity of External investors			R								R		R		R									
	Limited Availability of Financial Products	R			R	R					R			R				R		R			R	R	R
	Transition Stage of Capital Markets				S							S										S		S	
Benevolence Gap	Reluctance of Lending institutions			R				R			R		R	R				R		R				R	
	Issue of Granularity				S		S				S	S		S									S	S	

Themes	Rounds- Issues	7				8				9				10				11			
		S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38	S39	S40	S41	S42	S43	S44
Demand Gap	Cost of Credit	R			R		R			R			R	R		R		R		R	R
	Complex Collateral Requirement		R				R			R						R					
	Cumbersome Procedures		R	R			R						R	R	R		R				
	High Moratorium Period	R	R	R			R	R	R		R	R	R		R	R	R	R		R	R
	Self-Abstaining for External Funds	R		R	R	R				R	R		R		R		R				
	Past Experience								S	S			S								
	Inefficient Information Dissemination from authorities	S				S			S		S		S	S							
Knowledge Gap	Less awareness about the available financial resources				S	S		S			S		S		S		S			S	S
	Lack of Management Professionals				R	R			R				R				R			R	
Supply Gap	Preparation & Presentation of Financial Statement									S				S	S						
	Financial Performance	S			S		S		S	S		S		S		S		S		S	S
	Information Asymmetry								R	R			R		R		R				
	Creditworthiness			S	S				S		S		S	S	S		S				S
	Bureaucratic Environment						R												R		
	Scarcity of External investors	R	R				R														
	Limited Availability of Financial Products			R				R	R					R					R		
	Transition Stage of Capital Markets		S									S							S		S
Benevolence Gap	Reluctance of Lending institutions		S			R			R		R		R				R				
	Issue of Granularity						S													S	S

The codes developed from the interview transcripts are basically the key issues identified in the study. The results of converged issues are also highlighted in table 5.2. Based on the above analysis, we classified hurdles into four financing gaps. The description of each gap along with the identified issues is as follows-

5.3.1. Demand Gap

The literature reveals that there is no dearth of studies that depict the need for external finance from formal sources. However, 90% of the new ventures are financed through informal sources (Lam, 2010). Further, De (2010) stated that the use of an alternative form of finance is higher in Indian SMEs as compared to formal lending resources. It provides a scope for researchers to rethink the plausible reasons behind this mismatch. This may be because of the difficulty in accessing external finance through formal resources or because owners do not wish to procure funds from formal lenders. This section deals with the demand side difficulties in procuring funds from external resources.

Respondents were asked for the reason behind the higher use of informal financial resources in relation to formal resources. The majority of the respondents have focused on the issue of higher interest rates charged by banks and financial institutions. However, the use of informal finance is not just due to higher interest rates because money lenders do charge a very high rate of interest. Young respondents have agreed with the fact that they prefer formal finance due to higher interest rates charged by money lenders in the market. However, whenever they are not able to avail this, they are compelled to look for alternative sources of finance.

Old respondents however are much more familiar with these money lenders. Further, some respondents have also confirmed that to establish creditworthiness in the market, it is a must to procure funds from outsiders. Further, it is easily available without much procedural complexities and paper work formalities.

This issue is more poignant with SMEs involved in export activity. As SMEs contribute significantly to the exports in India and to improving the holistic growth of exports, issues related to SME financing need to be tackled. Access to capital is the major contributor in the growth of export-oriented SMEs. More specifically, working capital financing continues to be a major obstacle in the smooth operations of these firms. Most SMEs use packing credit facility provided by the commercial banks. These firms however still face the issue of high cost of credit, collateral requirements

and adequate and timely access to credit. The following responses obtained from the owners proved the validity of the above description:

"Interest rates are not competitive as compared to those of other players in the foreign market."

"Cost of borrowing is expensive."

"Foreign players are charged with 2-3% interest rates on funds procured for export activity whereas Indian players are charged with 12-13% interest rates which is considerably high in relation to those of foreign competitors."

"Why should I earn for others rather than myself, that's why I don't want to procure funds from external resources and always prefer internal funding."

"Our Business is too small to bear the cost of credit."

"We want a stable risk-free business and don't want to indulge ourselves in the funding which demands for higher interest rates."

Apart from cost of credit, **collateral requirements** in the form of land, infrastructure, inventory and financial securities have also made SME owners handicapped. This situation forces owners to involve their personal assets in the business. This may increase the probability of financial distress in the case of an underperforming market. The responses in this case are as follows:

"Banks demand high value collaterals and we don't have enough physical assets to fulfill the requirement."

"Why I keep my property of higher value for the requirement of lower value loan."

"Lenders provide loan less than the worth of mortgage property and still we are lacking the required amount of funds and we have to search for other financing options."

"Even collateral-free loan comes with high interest rates and again we are in the same situation of financial distress struggling with the issue of interest payment."

"We have started our firm 1 year ago and we don't have enough collateral to fetch loans from the formal lending resources and thus we need to look for informal resources for financial assistance."

"Informal resources also demand for collateral in fetching loans".

Even after fulfilling the requirements of collateral and readiness to pay high interest rates, SME owners are very stressed by the **procedural requirements of lending institutions.** Their responses are as follows:

"Procedural issues are complex and difficult to understand."

"One needs to go from one person to another for the approval of loan and has to fulfil several requirements, which is indeed a cumbersome task."

"I don't understand whether we do business or fulfill the requirements of banks and financial institutions...it is very difficult for a businessman that's why I procure funds from alternative sources like money lenders in the market, trade credit, buyer's credit, customer advance, etc".

"In our business working capital requirement is high, we need funds on a daily basis; though banks do provide support but that is not enough to fulfil immediate requirements due to lengthy procedures and delay in loan disbursement."

"Extent of Formalization is high... no one has the time for all these long and cumbersome procedures....simple and clear procedures and that too at a single window should be exercised...."

The **High moratorium period** is also one of the issues faced by SME owners. The moratorium period is the period between approval and disbursement of a loan. When this tenure is coupled with processing issues, it will lead to a delay in the funding. The SME owners stated that

"I applied for the loan 6 months back. The loan has been approved but still I haven't received the funds."

"I have to sacrifice my new project due to a delay in loan disbursement."

"I have to borrow money from the money lender at a very high interest rate because of the delay in releasing of funds from the financial institution and I end up paying 3 times higher for the equipment."

The above discussion therefore classifies the demand gap into four parts, namely, issue of *high interest rate, complex collateral requirements, procedural concerns and high moratorium period*. There are also certain issues that are also raised by the respondents during the interview. This includes *self-abstaining for external funds, past experience, inefficient information dissemination about the financial products and services available for SMEs from the government authorities*. All these issues directly or indirectly affect the demand for external funds from formal financial resources. Although the owners used facilities like cash credit and overdraft facility from banks, the aforementioned issues considerably subdued the demand.

5.3.2 Knowledge Gap

The demand gap coupled with the knowledge gap increases the funding gap for the SME sector in India. The knowledge gap can be defined as the lack of knowledge and

awareness about the various financial products and services available in the market for SMEs. Owners do not have any knowledge about the various schemes of the government. When respondents were asked questions about the various financial schemes launched by the government, they seem to be unaware of the same. Their responses are as follows:

"We don't know about any scheme related to export promotion."

"Does the government provide subsidy on purchasing a machine, I don't know if there is any."

"I don't have any idea whether the government also provides support for marketing of products manufactured by SMEs."

"Whom does one approach for these schemes? Whom do we contact?"

"Schemes are made on paper and do not get implemented and executed in reality."

"We are unaware of the idea of crowd funding ...is it going on in India?"

"I have never visited the site of MSME and can I get all information on the website or do I need to visit the office ...will you please mail the details of these schemes."

"We don't want any funds from banks or government...I am capable of running my business on my own."

"My past experience does not go well with these resources...there are several lacunas...who will fill it and when? ...this is a matter of great concern...I cannot discuss all issues with you."

"We don't understand the procedure of accessing funds through these resources in a definite period of time."

"We are well aware of these schemes and have availed it too."

The aforementioned statements indicate the view of those who wish to seek financial assistance from government schemes. These owners however do not know how to avail them and some even do not know about the presence of these schemes. However, some owners do avail these schemes; on the contrary, there are some who have knowledge about these financial resources but do not want to procure funds from the same.

The above discussion highlights the need for fulfilling the demand side issues of SME owners. The points raised by SME owners discourage further lending, and therefore, it clearly depicts the lacunas of lending infrastructure available for SMEs. Effective and efficient measures should be taken to address these concerns and this will definitely improve the situation.

5.3.3 Supply Gap

The demand gap addresses issues related to impediments that restrict the demand of funds from lending resources, whereas the supply gap concentrates on issues that confine the supply of funds from lending resources. The supply of financial resources plays a pivotal role in funding the financial requirements of SMEs. Supply side constraints also contribute in tightening the financing gap of SMEs. The respondents were asked about the possible reasons hampering the supply of funds. Their answers were as follows:

"Banks require disclosure of too much information which is sometimes not available."

"Past financial records hamper the present funding."

"Less consideration is given to the present and future prospects of a firm and banks are more rigid on past growth and profitability."

Therefore, the above issues clearly reveal that **information asymmetry** is the biggest challenge faced by SME owners. Opacity of financial information certainly creates a hurdle in getting funds from financial institutions.

Creditworthiness is another matter of concern for lending institutions. This problem is mainly faced by new ventures that have not taken loans from external resources and do not have past records to prove their creditworthiness. This is substantiated by the following statements-

"We don't get loans because we don't have any past records of prior lending."

"There is a huge gap between reality and theory, getting a loan sanctioned is not as easy as it seems to be on websites and catalogues."

"If not history, banks need a guarantor with a specific net worth."

"Owners' credit history plays an important role in sanctioning loan from lending institutions."

High bureaucratic environment in the formal financial institution also decelerates the funding of SMEs. In the words of the respondents,

"Reference is important for having hassle-free borrowing...otherwise you have to go through several procedural aspects in different ways for a long time...meanwhile you will lose interest and thereby search for another source of funding."

"Corruption is the main reason behind delaying or non-sanctioning of funds....because timely credit is important rather than delayed one in the business."

"Generally banks and financial institutions do preference lending as per their relationship with the clients or borrower...therefore, those who need funds are not able to avail it if they are not having a good term with the institution."

Another significant concern pertaining to the supply side is the ***availability of financial products and services*** catering to the needs of SMEs in India. This is confirmed by the following responses:

"There is no distinction within SMEs ...there should be specially designed products as per the size of SMEs e.g. like we have micro finance institutions for micro firms, we should have special agencies for small and medium scale firms."

"Financial products available in the markets are not attractive enough to draw the attention of SMEs."

"Leasing and factoring network should be strengthened to provide more facilities."

"Funding through venture capitalists and business angels should not be restrained only for technology-based firms, there should be a corpus funding for manufacturing firms too so as to fortify manufacturing capacity of Indian SMEs."

"Industry-specific funding is not available.

Other concerns like *preparation and presentation of financial statement, scarcity of external investors and transition stage of capital markets for SMEs* in India also hampers the supply of funds.

This section describes the significance of having differential financial products for SMEs. On the contrary, SMEs should also focus on the requirements of institutions while preparing their financial statements. The need for finance among SMEs is dynamic rather than static. Therefore, supply of industry-specific funding is highly essential for SMEs.

5.3.4 Benevolence Gap

According to Cosh and Hughes (2003), banks are the prime providers of formal external finance to SMEs. Access to finance is also influenced by funding preferences of SME owners along with the risk aversion feature of banks (Hamilton and Fox, 1998; Howorth., 2001). Cressy and Toivanen (2001) stated that this risk aversion might be the cause for the preference of banks towards funding less risky ventures or *"better borrowers"*. This implies that lending institutions regard SMEs as risky ventures and thereby do not wish to invest in these firms. This reluctance of financial institutions in providing funds to the SME sector is known as the benevolence gap. Respondents also agreed positively to the statement as follows:

"I prefer to take financial assistance from financial institutions but these institutions are highly suspicious about our project proposal and need several verifications and proofs ...despite providing proper details of financial statements loan proposals are rejected."

"I don't know why there is a hesitance in believing a new project offered by small-scale industry by the banks and other institution..."

Bhattacharya *et al.* (2000) also documented that banks do not consider SME as an attractive avenue for investment. Due to low profitability, insufficient assets, high mortality rates, lending institutions are reluctant to provide funds to SMEs. Some respondents have also pointed out the issue of *granularity* which is related to the risk grading system adopted by banks. According to Srinivas (2005), banks do not have the necessary capability to distinguish between good and bad risks. This normally results in over-pricing of good risk and under-pricing of bad risks. This issue is more poignant in the case of SME lending in India.

5.4. CONCLUSION

The financing gap is the outcome of financing constraints faced by SMEs. The characteristic and nature of these constraints further divide the financing gap. Before moving towards a permanent and stable solution, one needs to identify the type of financing gap. As discussed, the financing gap largely comprises demand, knowledge, supply and benevolence gap. This chapter describes the real-time problems being faced by borrowers. It also highlights issues and classifies the aforementioned concerns into four major themes.

Demand and knowledge gaps indicate the reasons that reduce the demand for financial sources. In contrast, supply and benevolence gap depicts the reasons behind the inadequate supply of finance. This study places emphasis on reducing both demand and supply side concerns to mitigate the financing problems of SMEs. The present research suggests that mutual cooperation of borrowers and lenders is imperative. The findings obtained from the study emphasize the acuteness of the financing issues faced by SMEs. This further helps in understanding the depth of the problem. The findings also provide the fundamental basis for doing the study. The careful and prudent analysis of interview findings has documented the necessity of analyzing the sources of finance availed and preferred by the SMEs in India. It will help in framing financing issues with respect to the specified financing resource.

The next chapter presents the findings of the main study. It primarily analyses the primary data collected with the help of a structured questionnaire. It thereby illustrates the financing preferences and practices of SME owners and identifies the specific gap between the preferred and existing financial resources availed by Indian SMEs.

CHAPTER – 6
FINANCING PREFERENCES OF SMES

CHAPTER 6

FINANCING PREFERENCES OF SMES

Preface

This chapter commences with an overview of the research methods applied in this study to analyse the data collected from the structured questionnaire. It primarily exhibits the research findings of the first three objectives of the study. It begins with the examination of non-response bias and is followed by the testing of assumptions used for parametric tests. The next section illustrates the findings pertaining to identification and analyses of the financing preferences of small- and medium-sized enterprises (SMEs). The second research objective of the study was accomplished by assessing the significant association between financing preferences and practices of SMEs. The findings of the multiple regressions are presented in the subsequent section followed by the summary of the research findings and conclusion.

6.1 INTRODUCTION

The central objective of this study was to identify and analyse the financing preferences of SMEs in India. This chapter demonstrates the analyses of primary data collected with the help of a structured questionnaire. It primarily explains the sources of finance preferred by SME owners/managers. It also discusses the current financing practices adopted by SME owners/mangers and then compares the sources of finance availed and preferred by Indian SMEs. This chapter presents the research findings for the following objectives:

1. Identification and analysis of the prevalent financing preferences of SMEs.
2. Determination of the strength of association between owners'/managers' financing preferences and   existing capital structure of SMEs.
3. Establishing the relationship (if any) between SME owners'/managers' attributes and financing preferences of firms for different sources of funds.

The present study applied the three main methods of data analysis, namely, exploratory, descriptive and inferential. The outline of the three methods is as follows:

1. The visual representation of data mainly through data arrangements for further examination is covered in exploratory analysis. It primarily summarizes the data in a systematic and logical manner.

2. Descriptive data analysis was applied to depict quantitative description of data. It enables a comparison to be drawn across the group of data.

3. Inferential analysis includes hypothesis testing. It allows the researcher to make generalizations about the population from the selected sample.

Inferential analysis is further divided into univariate, bi-variate and multivariate. The analysis usually carried out with the help of single variable is termed univariate analysis, whereas the analysis that involves the application of two or more variables is known as bi-variate and multivariate analyses respectively. Variables are described with the help of univariate analysis. It presents the mean, median and standard deviation of the financing preferences and practices of Indian SMEs. This is followed by bi-variate analysis which includes correlation analysis .Subsequently, stepwise regression applied to demographic variables and financing preferences is dealt with in multivariate analysis. Before the application of statistical tests, the next section examines the non-response bias in the data collected through the survey method followed by the assumptions of various parametric tests applied in the study.

6.2 NON-RESPONSE BIAS

According to Berg (2005), non-response bias is an error which occurs in estimating the features of a population. It is generally associated with the survey method of data collection. It results in the under-representation of the sample from the target population. The presence of non-response bias may lead to the unidentified pattern of the population (Saunders *et al.*, 2009). Therefore, it may not provide convincing grounds of generalizing the finding of the sample to the entire population. The disparity between sample and population characteristics may be misleading in explaining the actual cause of a phenomenon. Hence, non-response bias needs considerable attention in survey-based studies.

Owing to the humongous number (51.1 million) of SMEs in India, it is not possible for a researcher to include all the firms in the survey. Therefore, the northwest region of India was chosen for the study because it has the majority of SME clusters. Further, it is very well known that SME-related information is not readily available. Therefore, MSME-DIs were contacted for preparing the sampling frame of SMEs in the major and approachable SME clusters in the northwest region of India. It accounts for the information of 2789 SMEs. The data collection process was very tough and tedious because of the reluctance of SME owners in sharing financial information. This finally resulted in 309 complete

and valid responses. It took around 10 months to collect the primary data. Therefore, there is a possibility of the presence of non-response bias in the current study.

Moreover, the issue of non-response bias is very common in survey research (Churchill, 1979). Given that information of respondents versus non-respondents is unavailable, an approach suggested by Wallace and Mellor (1988) to test for non-response bias that compares early to late respondents was applied in this study. Specifically, the comparison was made among183 firms that responded during the first five months of the survey (early respondents) and the 126 firms that responded during the last four months (late responses) on three firm characteristics: firm size (F1), business stage (F2) and export orientation (F3) and three respondent characteristics: gender (R1), experience (R2) and education (R3). Table 6.1 shows no statistically significant differences at the 0.05 level on any of these characteristics. Although these results lessen the concern about generalizing the findings to other Indian SMEs, the findings of this exploratory study are suggestive rather than definitive.

Table 6.1 Test for Non-Response Bias

Table 6.1 represents the results of non-response bias based of three firm characteristics: firm size, business stage and export orientation and three respondent characteristics: gender, experience and education. It compares information from the 183 respondents during the first five months of the survey (early responses) to the 126 respondents during the last four months (late responses).

Variables	Firm and Respondent Characteristics	χ^2 Value	Degrees of Freedom	*p*-value
F1	Firm size	2.941	4	*0.568*
F2	Business stage	7.082	4	*0.132*
F3	Export orientation	0.375	1	*0.540*
R1	Gender	0.875	1	*0.350*
R2	Total experience	2.459	4	*0.652*
R3	Education	5.781	9	*0.339*

No significant difference between early and non-respondents has been indicated by p values

6.3 SAMPLE DESCRIPTION

The sample for this study is described in the form of firm- and owner-specific features. The demographics of the sample were discussed under three categories, namely, firm-specific features, respondent's characteristics and others.

Firm features are explained with the help of legal status, business stage, firm-size, operating sector, export activity and firm's performance. It provides an understanding regarding the background information of the respondents.

Legal status of the firm is divided into sole-proprietorship, partnership and private limited, public limited and Limited Liability Company. India SMEs are mainly characterized by sole proprietorship. The sample composition of legal status of firms also exhibits 43% sole proprietorship firms followed by 34% private limited firms and 23% partnership firms. The sample does not comprise any public limited firm and limited liability partnership.

Business stage was studied to describe the life cycle of the SMEs. According to Berger and Udell (1998), the operating stage of firms is an imperative indicator in explaining the ability of the firm to procure financing resources. The sample comprises 56% SMEs operating at maturity and expansion stage followed by 33% SMEs working at the growth stage and 11% firms operating at the incubation or start-up stage.

The Indian SME sector is divided into micro, small and medium enterprises. The classification is based on investment in plant and machinery and equipment as specified by the MSMED Act 2006. The survey questionnaire also classified SMEs on a similar basis. It is found that the majority of the sample comprises small enterprises (50%) followed by micro (44%) and medium (6%) enterprises. Further, Indian SMEs are also mainly dominated by micro and small enterprises.

Moving forward, the survey questionnaire also presents information related to the operating sector of SMEs. As SMEs are operational in the varied industries, these are primarily divided into manufacturing and service SMEs. Most of the responding firms (83%) are in the manufacturing sector with the remaining firms in the service sector (17%). Further, the value addition of manufacturing SMEs is higher as compared to that of service SMEs in India (MSME Annual Report, 2015). In addition, the demand of funds is greater in the manufacturing sector as compared to that in the service sector.

The survey also outlined the annual sales turnover of the Indian SMEs in six categories, namely,<1 crore, 1-5 crores, 6-20 crores, 21-50 crores,51-100 crores and>100 crores. Of the firms, 32.7% have an annual sales turnover of 1-5 crores followed by 32.4% that have an annual sales <1 crore. Some firms also (29.4%) have annual sales ranging from 6 to 50 crores and the remaining firms (5.5%) have a turnover of >50 crores. The contribution of SMEs is significant in the export of various products. Access to capital is the major contributor in the growth of export-oriented SMEs. More specifically,

working capital financing continues to be a major obstacle in the smooth operations of these firms. Therefore, the classification was also done according to the export activity to understand the financing needs of export-oriented SMEs. The sample comprises 33% export-oriented firms and 67% non-export-oriented firms.

Profitability is an important indicator of the financial health of a company. It measures firm performance. In this study, respondents were asked to indicate the status of the profitability in the form of increase and decrease in the average profitability of the past three years. Some respondents (64.7%) reported an increase in the firm's profitability, whereas 35.3% reported a decrease in the average profitability.

The above description presents the overall profile of firms sampled in the present study. The preview of the industrial profile of the sampled SMEs operating in India is presented in annexure II. It illustrates the industries of sampled SMEs from the northwest region of India and thereby presents the firms from the major clusters of the northwest region of India.

The next section captures the demographic details of the respondents. The survey questionnaire included six questions to gauge the information related to their gender, age, education, experience and ownership.

Table 6.3 indicates that out of 309 responses received, 87% are from male respondents and 13% are from female respondents. Further, according to the Annual report of MSME (2015), there are only 7.36% women-owned SMEs in India. This justifies the relatively lower proportion of female respondents as compared to male respondents.

The age of the respondents was asked in six categories, namely,<25 years, 26-35 years,36-45 years, 46-55 years, 56-65 years and >65 years. Results reveal that only 2.3% of the respondents are <25 years old. The majority (75%) of them are >35 years old.

Education level of the respondents was described by four categories, namely, school certificate, diploma, undergraduate and postgraduate. Most of the respondents had a university degree. Of the respondents, 41.4% are graduates and 36.2% have a post-graduation degree. Among graduate and post-graduate respondents, some of them have a technical degree in engineering; some are MBAs, chartered accountants and company secretaries. There are a few respondents with a Ph.D degree, too. However, the remaining respondents have a lower education. Some respondents (16.2%) have a school certificate and 6.1% are diploma holders.

The survey questionnaire also considered experience in explaining the profile of respondents. Experience is divided into two parts, namely, total working experience and experience with the present business. Based on the number of years, experience is divided into three categories, namely, low, moderate and high. Respondents who have work experience of ≤3 years are considered to have low experience and those who have4 -10 years are considered to have moderate experience, whereas respondents who have work experience of >10 years are considered to have high work experience. Majority of the respondents has a high level of experience in the current business (61%) and have a high level of total experience (71%).

Respondents were also asked about their involvement with the present business either as an owner or manager of the firm.

Interestingly, almost 96.8% respondents stated that they were the owners of the present business and the rest of the respondents did not possess any ownership in the business.

The research instrument also captured questions pertaining to the mode of acquisition and motive behind the business. Seventy percent of the owners have started their firms, whereas 24.6% inherited their firms and only 5.5% purchased their firms. This implies that most of them are first-generation entrepreneurs. The prime motives behind business are listed in five categories, namely, entrepreneurial ability, financial rewards, business expansion, no job after college, job dissatisfaction and retrenchment of job. Sixty-five percent respondents stated entrepreneurial ability as the motive behind starting the business followed by financial rewards (45%), business expansion (35%), no job after college (13%), job dissatisfaction (8%) and retrenchment from job (6%).

Table 6.3 describes the sample under three panels. Panel A presents the firm characteristics namely legal status (SP=Sole proprietorship; PT= Partnership; PL= Private Limited), Stage of the business (St-up=Startup; Gr. = Growth; Mat. =Maturity), Firm size, operating sector, export orientation (Expo. =Exporters; Non-Expo. = Non Exporters) profitability status and annual sales turnover.

Panel B exhibits the owner/manager characteristics namely gender, age, experience, ownership and Education (SC=School Certificate; DH=Diploma Holders; UG= Under Graduate; PG= Post Graduate).

Panel C depicts the modes of acquisition (A1= Inherited; A2= Purchased; A3=Started from the Scratch) and motives behind the business (M1= Entrepreneurial Ability; M2= Financial Rewards; M3= Business Expansion; M4= No Job after College; M5= Job Dissatisfaction and M6=Retrenchment from Job).

Table 6.2 Sample Profile of Indian SMEs

This table describes the sample of responding Indian SMEs. Panel A describes the firm characteristics; Panel B specifies owner/manager

characteristics; and Panel C represents the mode of acquisition and motive behind the business

PANEL A-FIRM CHARACTERISTICS											
Legal Status	SP*	132	42.7%	**Stage of Business**	St-Up*	33	10.7%	**Firm Size**	Micro	135	43.7%
	PT*	72	23.3%		Gr.*	102	33.0%		Small	156	50.5%
	PL*	105	34.0%		Mat.*	174	56.3%		Medium	18	5.8%
Sector	Manufacturing	256	256.0%	**Export Activity**	Expo.	103	33.3%	**Profitability Status**	Increase	200	64.7%
	Service	53	53.0%		Non-Expo	206	66.7%		Decrease	109	35.3%
Sales Turnover (in crores)	< 1	100	32.4%	**Sales Turnover (in crores)**	21 to 50	33	10.7%				
	1 to 5	101	32.7%		51 to 100	9	2.9%				
	6 to 20	58	18.8%		>100	8	2.6%				
PANEL B-OWNER/MANAGER CHARACTERISTICS											
Gender	Male	270	87.4%	**Age (in years)**	< 25	7	2.3%	**Age (in years)**	46-55	119	38.5%
	Female	39	12.6%		25-35	69	22.3%		56-65	13	4.2%
					36-45	95	30.7%		> 65	6	1.9%
Total Experience	Low	16	5.2%	**Experience with Current Business**	Low	50	16.2%	**Ownership**	Yes	299	96.8%
	Moderate	73	23.6%		Moderate	71	23.0%		No	10	3.2%
	High	220	71.2%		High	188	60.8%				
Education	SC*	50	16.2%								
	DH*	19	6.1%								
	UG*	128	41.4%								
	PG*	112	36.2%								
PANEL C -OTHERS											
Mode of Acquisition	A1*	74	23.9%	**Motive behind Business**	M1*	201	65.0%	**Motive behind Business**	M4*	40	12.9%
	A2*	12	3.9%		M2*	139	45.0%		M5*	25	8.1%
	A3*	223	72.2%		M3*	108	35.0%		M6*	19	6.1%

*Categories marked with * have been explained in the above section 6.3*

6.4 USE OF SUMMATED SCORES

This study applied data transformation in several variables. This is basically done to gauge the required data for the purpose of analysis. Data transformation simplifies the analysis and helps in enhancing the understanding of the data to achieve the desired research objectives. The responses based on a five-point Likert scale were combined to obtain a composite score. The individual items pertaining to a similar source were aggregated or summated for hypothesis testing.

Data transformation is the process of altering the original form of data into a new category. It is primarily done to reduce the number of categories in the research instrument. It rebuilds the variable by logical transformation. It can be done by computing either the summated score or average summated score. According to Hair *et al*. (2007), the average summated score is always comparable to the original scale used in the study. However, Mitchell and Jolley (2010) reported that Likert-type items can be used to obtain summated scores. This was done by adding the responses of a similar category. The total score of all the variables presents the score of new variables used in the study for further analysis.

Foster and Swensen (1997) and Mitchell and Jolley (2010) listed the following advantages of using summated scores:

1. It is more reliable.
2. It simplifies the analysis procedure.
3. It also improves the validity and reliability of the measurement scale.
4. It measures the multidimensional concept.
5. It diversifies the measurement error in the individual question by aggregating the individual scores into composite scores.

The present study applied data transformations on the level of financing preferences of SMEs and the financing practices of SMEs in India. Section 2 of the research instrument entails the details of the level of financing preferences for various sources of funds. These resources were further classified into five new categories, namely, internal equity financing (IEF), short-term financing (STF), long-term financing (LTF), other forms of financing (OFF) and external equity financing (EEF). Further, the subsequent section explains the availed financial resources of Indian SMEs. The availed resources were also categorized into IEF, STF, LTF and OFF. Financing practices does not have the category of EEF because during the pre-test and pilot study, experts unanimously declined the use of EEF in the current financial structure of Indian SMEs. Moreover, none of the

respondents include it in the others category too (specified in the questionnaire).Therefore, financial resources describing the EEF were not included in section 3 (pertaining to financing practices) of the research instrument.

Table 6.3 presents the details of financial resources included in each composite variable. IEF includes owner's fund, retained earnings and fund from group companies.

Table 6.3 Summary of Components of Composite Variables

This table presents an overview of components (financial resources) included in each defined composite variable for financing preference (PREF) and practice (PRAC).

S.No.	Composite Variable	Components of Composite Variable	Composite Variable	Components of Composite Variable
1	IEF_PREF	Owner's Funds, Retained Earnings and funds from group companies	IEF_PRAC	Owner's Funds, Retained Earnings and funds from group companies
2	STF_PREF	Cash Credit, Bank Overdraft, Short-term Bank loan, Export Import finance	STF_PRAC	Cash Credit, Bank Overdraft, Short-term Bank loan, Export Import finance
3	LTF_PREF	Long-term bank loans, funds from financial institutions, government financing	LTF_PRAC	Long-term bank loans, funds from financial institutions, government financing and funds from fixed deposit
4	OFF_PREF	Trade Credit, Family friends and relatives, money lenders and funds from other firms	OFF_PRAC	Trade Credit, Family friends and relatives, money lenders and funds from other firms
5	EEF_PREF	Public Equity, Funds from venture capital and business angels		

STF consists of cash credit, bank overdraft, short-term bank loan and export-import finance. LTF comprises long-term bank loans, funds from non-financial institutions and government financing. OFF incorporates trade credit, funds from family friends and relatives, money lenders and funds from other firms. Finally, EEF consists of public equity, funds from venture capitalists and business angels.

6.5 ASSUMPTIONS OF PARAMETRIC TESTS

Research based on the survey method is very common in social sciences (Sekaran, 2003). It is also one of the evolving methods in SME financing. Gathering of complete data is often an issue with survey research (Zikmund, 2000). According to Tabachnick and

Fidell (2007), dealing with missing data is one of the most common and frequent problem in survey research. The issue of incomplete data arises when the respondent fails to answer the questions in the survey instrument. This will result in low statistical power of analytical tests. However, the current study did not incorporate any response having missing values. This is because the majority of the responses were filled by personal administration of the questionnaire.

The current study used parametric test for the analysis. There are certain basic assumptions of parametric tests that are required to be fulfilled before the application. According to Field (2009), it necessary to test the assumptions of parametric tests, else it will yield inappropriate results. The following section discusses the assumptions of parametric tests:

6.5.1 Level of Measurement

Parametric tests assume that measurement of the data should be at least on an interval scale (Field, 2009). Variables can be classified as categorical and continuous. Categorical variables are measured on an ordinal and nominal scale and continuous variables are measured on an interval and ratio scale. The present study applied three different levels of measurement- nominal, ordinal and interval scale. Parametric tests can be applied only on variables measured on the interval scale or ratio scale. However, it is quite difficult to differentiate between ordinal and interval level scales. A variable can be classified as measured on interval scale till the equal intervals on the scale present equal differences of the items being measured. Measurement using a five-point scale was treated as the interval scale in the empirical studies.

The present study used a five-point Likert scale in measuring the level of financing preferences and practices of SMEs. These variables were analysed with the help of an appropriate parametric test.

6.5.2 Test for Normality

The most fundamental assumption for parametric tests is normality. It refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution (Hair *et al.*, 2007). Normality is essential for applying *F* and *t* statistics because if the deviation is sufficiently large, then all the statistical tests become invalid. Therefore, an evaluation of normal distribution of data is a prerequisite condition for applying parametric tests. The study applied two main approaches for evaluating the normal distribution, namely, graphically and numerically.

6.5.2.1 Graphical Tests of Normality-The simplest diagnostic test for normality is a visual check of the histogram that compares the observed data values with a distribution approximating the normal distribution (Hair *et al.*, 2007). A more reliable approach is the probability plot (Q-Q Plot). It compares the cumulative distribution of actual data values with the cumulative distribution of a normal distribution. The normal distribution forms a straight diagonal line and the plotted data values are compared with the diagonal. If a distribution is normal, the line representing the actual data distribution closely follows the diagonal (Hair *et al.*, 2007). The normal probability plots of all the metric variables used in the study are presented in annexure III. The metric variables for measuring financing preferences and practices of Indian SMEs are IEF_PREF, STF_PREF, LTF_PREF, OFF_PREF and EEF_PREF SMEs and IEF_PRAC, STF_PRAC, LTF_PRAC and OFF_PRAC, respectively.

The graphical representation of Q-Q plots shows that all the variables are clustered around the diagonal line. Hence, there is no requirement for further transformation of variables.

6.5.2.2 Statistical Test for Normality-The present study also applied various statistical tests to examine the normality of metric variables. The two most common statistical tests are Shapiro-Wilk(S-W) test and Kolmogorov-Smirnov (K-S) test. Each test calculates the level of significance for the difference from a normal distribution. These tests are used to compare the values of the actual data set with standard values of the normal distribution having the same mean and standard deviation. The test is statistically non-significant if the *p*-value is >0.05. This implies that data are normally distributed.

Table 6.4 illustrates the results of the S-W and K-S tests for normality. The results are statistically significant at the 1% significance level. This implies that data are not normally distributed. However, these tests are sensitive for too large and too small samples, and it is easy to obtain significant results from small deviations.

Table 6.4 Normality Tests for Metric Variables

This table presents the statistics of KS and SW test for the metric variables. Note PREF=Preferences; PRAC=Practices.

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	*p value*	Statistic	df	*p value*
IEF_PREF	0.221	309	*0.000**	0.906	309	*0.000**
STF_PREF	0.084	309	*0.000**	0.972	309	*0.000**
LTF_PREF	0.142	309	*0.000**	0.950	309	*0.000**
OFF_PREF	0.088	309	*0.000**	0.970	309	*0.000**

EEF_PREF	0.233	309	*0.000**	0.847	309	*0.000**
IEF_PRAC	0.192	309	*0.000**	0.933	309	*0.000**
STF_PRAC	0.129	309	*0.000**	0.931	309	*0.000**
LTF_PRAC	0.124	309	*0.000**	0.928	309	*0.000**
OFF_PRAC	0.135	309	*0.000**	0.951	309	*0.000**

*df =degree of freedom; * indicates significant value at 0.01 significance level*

Further, the significance of the K-S test for large sample sizes cannot be considered as a deviation from normal distribution (Saunders *et al*., 2009; Field, 2009).

The shape of data distribution also examines the normal distribution of variables. This has been determined by examining the skewness and kurtosis of metric variables (Pallant, 2007). Skewness represents the symmetry of distribution and kurtosis exhibits the flatness or peakedness of the curve (Hair *et al*., 2007). The values of skewness and Kurtosis are expected to be zero for normal distribution of data. Hence, any value above or below zero exhibits a deviation from normality. Standard error of skewness and kurtosis are also reported in the study. If the values of skewness and kurtosis for every metric variable are less than the double value of the standard error, then data are said to be normal. Therefore, it has been cautiously suggested that the value of skewness and kurtosis should be <1 (Holmes-Smith, Cunningham and Coote, 2006). Table 6.5 shows that all the variables used in this study have values of skewness and kurtosis less than +/-1. Further, Z-statistics of skewness and kurtosis is also less than the most commonly used critical value of Z +/-2.58 and +/-1.96 (Hair *et al.*, 2007).It is important to note that the negative and positive values of skewness and kurtosis also reflect the underlying construct of the study. For instance, the positive skewed score of IEF_PREF represents the high preference of internal funds by SME owners/managers in India.

Table 6.5 Z score of Skewness and Kurtosis

This table presents the value of skewness and Kurtosis for the dependent metric variables where PREF=Preferences and PRAC=Practices

Dependent Variables	Skewness	Standard Error of Skewness	Z_{Skew} Score	Kurtosis	Standard Error of Kurtosis	$Z_{Kurtosis}$ Score
IEF_PREF	0.47	0.14	3.36	0.19	0.28	0.68
STF_PREF	-0.27	0.14	-1.93	-0.23	0.28	-0.821
LTF-PREF	-0.50	0.14	-3.57	0.18	0.28	0.66
OFF_PREF	0.16	0.14	1.143	0.20	0.28	0.71
EFF_PREF	0.59	0.14	4.21	-0.98	0.28	-3.5
IEF_PRAC	0.37	0.14	2.64	0.83	0.28	2.96
STF_PRAC	-0.36	0.14	-2.57	-0.87	0.28	-3.11
LTF_PRAC	-0.38	0.14	-2.71	-0.68	0.28	-2.43
AFF_PRAC	0.44	0.14	3.14	-0.77	0.28	-2.75

The issue of normality is also based on sample size. Larger sample size reduces the issue of normality (Hair *et al*., 2007). However, the workable sample size in the current study is 309, and hence, the presence of small non-normal univariate distribution is avoidable. Therefore, by analysing all the visual representations and statistical observation, normality is not an issue for the pursuance of the study.

6.5.3 Homoscedasticity

According to Hair *et al.* (2007), homoscedasticity refers to the assumption that dependent variables exhibit equal levels of variance across the range of independent variables. This is desirable because variance of the dependent variable being explained in the dependence relationship should not be concentrated in only a limited range of independent values. Field (2009) stated that homoscedasticity is essential for performing multiple regressions. Violation of Homoscedasticity will lead to serious issues in the analysis. This implies that dispersion is unequal across the values of independent variables. This is known as heteroscedasticity. It can arise mainly due to the violation of normality and due to errors in the measurement scale at some level in variables (Hair *et al.*, 2007; Tabachnick and Fidell, 2007). For grouped data, homoscedasticity is known as homogeneity of variances. This has been mainly analysed with Levene's test of equal variance (Field, 2009).

The present study applied Levene's test for the metric variables across firm characteristics and respondent's demographics as a part of the t-test and one-way analysis of variance (ANOVA). This test has depicted mixed results across different groups. For some variables, the value of Levene's test is higher than the critical value of 0.05. This thereby suggests equal variance of variables across groups. For some, it is lower than the critical value and therefore suggests unequal variance of variables across groups. According to Field (2009), Levene's test is sensitive with respect to sample size and can be significant for large samples. The sample size for the present study is 309. Thereby, the significance of few constructs across the groups in Levene's test does not represent substantial heteroscedasticity within the sample.

Therefore, an alternative method was applied to test the variance across groups. It is known as the variance ratio (Pearson *et al.*, 1954). This is the ratio of variance between the group with the biggest variance and group with the smallest variance. The study applied the F_{max} test to examine the homogeneity of variances across all groups for all the variables measured on an interval scale (see table 6.6). Because the variance ratio is less than the critical value for the F distribution (3.87) for all the variables, homogeneity of variance is met for the variables.

Table 6.6 Variance Ratio for Metric Variables

This table presents the variance ratio of financing preferences (PREF) and practices (PRAC) across firm and owner/manager characteristics.

	Panel 1 Variance Ratio across Firm Specific Characteristics					
	Variables	**Legal Status**	**Firm Size**	**Business Stage**	**Sector**	**Export Activity**
1	IEF_PREF	1.37	1.21	1.25	1.29	1.56
2	STF_PREF	1.51	1.64	1.18	1.10	1.03
3	LTF_PREF	1.40	1.31	1.17	1.32	1.50
4	OFF_PREF	1.14	1.62	1.31	1.06	1.29
5	EEF_PREF	1.23	1.16	1.23	1.05	1.07
	Panel 2 Variance Ratio across SME Owner/Manager Specific Characteristics					
	Variables	**Gender**	**Age**	**Education**	**Experience**	**Ownership**
1	IEF_PREF	2.04	2.12	1.33	1.15	1.23
2	STF_PREF	1.08	1.55	1.61	1.10	1.03
3	LTF_PREF	1.55	3.07	3.45	1.13	1.14
4	OFF_PREF	1.21	1.71	1.26	1.44	1.29
5	EEF_PREF	1.02	2.12	1.89	1.21	1.50

6.5.4 Multi-Collinearity

Multi-collinearity is a problem associated with the correlation matrix in which three or more predictor variables are correlated to one another. The presence of a high level of multi-collinearity results in reducing the unique variance explained by each independent variable and increases the shared percentage (Hair *et al.*, 2007). The presence of multi-collinearity limits the size of the regression value and thereby makes it difficult to understand the contribution of each independent variable. For increasing the prediction, it is advised to inspect highly correlated variables and delete one of them.

This study applied variance inflation factor (VIF) and tolerance value to identify the multi-collinearity among independent variables. According to the Pallant (2007), the tolerance effect indicates that the variability specified by independent variables is unique (not explained by any other independent variable), whereas VIF is the inverse of tolerance effect. A larger VIF (>10) and lower tolerance (<0.1) indicate the presence of multi-collinearity (Myers, 1997; Menard, 1995; Pallant, 2007).

In this study, the bi-variate correlation matrix was calculated using Pearson's correlation coefficient. The results of the correlation matrix are presented in Annexure VII. This indicates that none of the variables has a correlation value >0.8 and the values of VIF and tolerance also demonstrate the absence of multi-collinearity among variables.

6.5.5 Linearity

Linearity is an implicit assumption of multivariate analysis. Correlation represents only the linear association between variables. Non-linear effects will not be depicted in the

correlation value (Hair *et al.*, 2007). This omission results in an underestimation of the actual strength of the relationship. It is always imperative to investigate all relationships to identify any departures from linearity.

The most common way to assess linearity is to investigate scatter plots of variables. This is primarily done to identify any nonlinear patterns in the data. An alternative approach is the examination of residuals in multiple regression analysis (see annexure VI). The residuals reflect the unexplained portion of the dependent variable. This will thereby reveal the non-linear portion of the relationship. The above discussion on parametric assumptions clearly indicates that parametric tests are applicable to the study.

6.6 DATA ANALYSIS

This section illustrates the results of the first three research objectives of the study. The analysis is based on the data collected through the primary survey. It demonstrates the overall financing preferences of SMEs followed by the preferable terms of financing. It further states the preferable financing choices of SME owners/managers over each other. This thereby evaluates these resources in terms of each other. Further, the study discusses the current financial resources used by the SMEs. This is followed by the comparison of financing preferences versus financing practices of SMEs. Finally, it analyses the differences among financing preferences across firm and manager characteristics and then investigates the relationship between financing preferences and manager's demographics.

6.6.1 Financing Preferences of SMEs

SMEs can obtain funds both internally and externally. The first research question of the study focuses on the preferred types of internal and external sources of financing by Indian SMEs. These sources are IEF = internal equity financing, STF = short-term financing, LTF = long-term financing, OFF = other forms of financing and EEF = external equity financing. All the financial resources are described in the previous section. Regarding internal sources, Table 6.6 shows that about 92% of respondents expressed a high/very high preference for using retained earnings closely followed by owner funds (88%), and funds from group companies (21%)). The questionnaire classifies external financial resources as STF, LTF, OFF and EEF.As Table 6.7 shows, the respondents express the highest preference for bank overdrafts followed by short-term bank loans, cash credit and export-import financing.

Table 6.7 Financing Preferences of Indian SMEs for Different Sources

This table presents percentage of responding Indian SMEs expressing preferences for different financing sources where 1= very low preference, 2= low preference, 3=neither low nor high preference, 4= high preference and 5= very high preference. These sources are IEF = internal equity financing, STF = short-term financing, LTF = long-term financing, OFF = other forms of financing and EEF = external equity financing

		Preference Scale								
Sources	Financing Preferences	1 %	2 %	3 %	4 %	5 %	Mean	Std Dev	Rank (WS)	Rank (FAS)
IEF	Owner funds	1.3	4.2	6.8	36.2	51.5	4.32	0.87	2	2
	Retained earnings	0.0	1.9	5.8	41.7	50.5	4.41	0.69	1	1
	Funds from group companies	60.8	11.0	7.1	18.4	2.6	1.91	1.28	3	15
STF	Short-term bank loans	11	21.4	20.4	46.6	0.6	3.05	1.07	2	6
	Bank overdrafts	6.1	18.4	17.2	54.4	3.9	3.31	1.02	1	5
	Cash credit	7.4	28.2	17.8	46.0	0.6	3.04	1.03	3	7
	Export-import finance	60.8	6.5	2.3	18.8	11.7	2.14	1.55	4	14
LTF	Long-term bank loans	14.2	24.9	17.8	33.7	9.4	2.99	1.24	2	8
	Non-banking financial institutions	7.8	8.7	6.2	43.0	14.2	2.94	1.26	3	9
	Long-term government financing schemes	14.2	31.1	10.7	35.0	9.1	3.47	1.09	1	4
OFF	Trade credit	14.2	24.9	17.8	33.7	9.4	3.80	1.11	1	3
	Money lenders	38.2	21.0	18.4	19.7	2.6	2.28	1.23	3	11
	Family friends and relatives	17.5	12.9	31.7	35.0	2.9	2.93	1.14	2	10
	Funds from other companies	87.7	7.1	0.6	4.5	0.0	1.22	0.67	4	16
EEF	Venture capital	42.1	21,9	13.3	17.8	5.8	2.24	1.32	1	12
	Business angels	43.0	22.3	10.7	16.8	7.1	2.23	1.34	2	13
	Funds through an IPO	89.9	5.5	2.9	2.6	0.0	1.19	0.61	3	17

Where- WS: indicates rank within sources; FSA: indicates rank for all sources

The highest ranked long-term financing source is clearly long-term government financing schemes followed by long-term bank loans, and non-banking financial institutions. Regarding other sources of financing, the respondents show the strongest preference for trade credit. Funds from family, friends and relatives are the second most popular source. The respondents express a low/very low preference for money lenders and funds from other companies possibly because they charge higher interest rates. Another form of financing is external equity, which includes venture capital, business angel, and initial public offerings (IPOs). The majority of respondents expressed a low/very low preference for all three sources, especially financing through an IPO. This results in a loss of control and more stringent regulation as a result of listing.

6.6.1.1 Terms of Financing-Financing preferences were also analysed based on terms of financing. It focuses on determining whether Indian SMEs prefer short-, medium- or

long-term sources of financing. As Table 6.8 shows, the majority of the respondents (78%) expressed a high/very high preference for short-term financing with long- and medium-term sources being distant second and third preferences. The respondents tend to be conservative and prefer paying lower interest rates, which are typically associated with short-term financing sources. However, they use long-term financing mainly for capital-intensive projects, when such funds are available.

Table 6.8 Terms of Financing for Indian SMEs

This table presents the percentage of responding Indian SMEs expressing a preference for short-, medium-, and long-term financing where 1 = very low preference, 2 = low preference, 3 = neither low nor high preference, 4 = high preference and 5 = very high preference.

	Preference Scale							
	1	2	3	4	5	Mean	Std.	Rank
Term of Financing	**%**	**%**	**%**	**%**	**%**		**Dev**	
Short-term financing	4.5	8.7	8.7	56.6	21.4	3.82	1.014	1
Medium-term financing	3.9	28.2	48.5	14.9	4.5	2.88	0.869	2
Long-term financing	17.8	20.4	35.9	19.1	6.8	2.77	1.153	3

6.6.1.2 Preferred Internal and External Financing Resources-Moving forward, the study determined the ranking among preferred internal and external financing sources. As Table 6.9 shows, an overwhelming majority of responding SMEs selected internal funding (83%) as their first choice for funding business operations followed by bank financing (13%). By contrast, 71% of the respondents choose external equity as their last choice. The results involving preferences for internal versus external financing sources are consistent with evidence shown in Table 6.7. Of all internal and external financing sources, the respondents expressed the strongest preference for retained earnings and owner funds as indicated by their means of 4.41 and 4.32, respectively.

The results are consistent with the findings of Daskalakis *et al.* (2013) that firms rely heavily on internal resources and do not raise new equity from the market. Similarly, in the case of debt financing, SMEs prefer to use long-term debt but are not being able to do so because of limitations in the accessibility of these resources. Further, Haileselasie Gebru (2009) also predicted the applicability of POT on the basis of financing preferences of small business owners. This thereby indicates the high preference for internal financial resources.

Table 6.9 Ranking of Financing Preferences by Indian SMEs

This table presents the percentage of responding Indian SMEs assigning a rank to their preferred financial sources.

	Ranking of Financing Sources					
Financing Sources	**First Choice %**	**Second Choice %**	**Third Choice %**	**Fourth Choice %**	**Fifth Choice %**	**Last Choice %**
Internal funding	83.2	11.3	3.2	1.6	0.0	0.6
Bank financing	12.9	57.3	17.2	10.4	1.0	1.3
Govt. funding schemes	2.9	7.4	30.7	28.8	25.6	4.5
Family friends and relatives	0.6	22.0	27.8	24.9	13.6	11.0
Money lenders	0.6	0.6	13.3	24.9	37.2	23.3
External equity	0.6	1.6	4.5	4.9	17.2	71.2

The financing preferences of SMEs have been extensively depicted through table 6.7, 6.8 and 6.9. The preference for internal funds followed by trade credit, government funding schemes and short term funding facilities provided by banks like overdraft and cash credit are among prime choices of SMEs owners. This has answered the first research question by comprehensively describing the preferred financial resources by SME owners at both levels i.e. within the sources and for all the sources. The study has also revealed the preferred financing terms by the owners i.e. short term financing. This has further supported the above research findings.

6.6.2 Financing Practices of SMEs

The current study also examines the consistency between the stated preferences and practices of responding SMEs involving financing sources. Although similar to Table 6.6, Table 6.9presents the percentage of respondents using different financial sources, whereas Table 6.6 gives their preferences. Based on their mean responses, Table 6.10 shows a slightly higher use of retained earnings than owner funds for financing their operations. Table 6.10 exhibits the same overall ranking but a lower percentage of respondents express a high/very high preference for using owner funds (88%) but an almost similar preference for using retained earnings (92%).The difference between preferences and practices for using owner funds may be because of the scarcity of funds from external sources or other obstacles that restrict firms in using alternate financing sources.

Regarding short-term financing, Table 6.10 shows that a majority of responding SMEs reports a high/extremely high use of bank overdrafts and cash credit. However, only a small percentage report high/extremely high use of different long-term financing sources. About 22% of respondents report using long-term bank loans but only 7% indicated using funds from non-banking financial institutions and government funding schemes. The use of short-term liabilities is higher than that of long-term liabilities, which could be due to either the reluctance of financial institutions to provide loans to small businesses or information asymmetry (Kumar and Rao, 2015).

Table 6.10 Financing Practices of Indian SMEs for Different Financing Sources

This table presents the percentage responding Indian SMEs using various financing sources where1 = not at all used, 2 = somewhat used, 3 = moderately used, 4 = highly used, and 5 = extremely used. The financing sources are IEF = internal equity financing, STF = short-term financing, LTF = long-term financing and OFF = other forms of financing.

		Use Scale								
Sources	Financing Practices	1 %	2 %	3 %	4 %	5 %	Mean	Std Dev	Rank (WS)	Rank (FSA)
IEF	Owner funds	0.0	1.9	7.1	46.0	45.0	4.34	0.696	2	2
	Retained earnings	1.9	0.6	6.5	39.5	51.5	4.38	0.799	1	1
	Funds from group companies	69.6	10.7	3.2	14.6	1.9	1.69	1.18	3	12
STF	Short-term bank loans	0.0	33.0	27.2	19.7	20.1	2.27	1.12	3	9
	Bank overdrafts	25.9	9.1	12.3	49.2	3.6	2.95	1.33	1	5
	Cash credit	20.4	17.5	17.2	41.1	3.9	2.91	1.25	2	6
	Export-import finance	70.9	7.8	13.6	7.1	0.6	1.59	1.01	4	13
LTF	Long-term bank loans	32.7	20.7	24.3	19.7	2.6	2.39	1.20	1	8
	Non-banking financial institutions	62.1	11.7	19.1	6.5	0.6	1.72	1.03	2	10
	Long-term government financing schemes	75.4	10.7	6.5	7.4	0.0	1.46	0.91	3	14
	Funds through fixed deposit	56.6	20.4	16.8	6.1	0.0	1.72	0.953	2	10
OFF	Trade credit	9.7	7.1	14.6	45.3	23.3	3.65	1.19	1	3
	Money lenders	36.9	11.7	26.9	23.3	1.3	2.40	1.236	3	7
	Family friends and relatives	16.8	7.8	29.8	39.2	6.5	3.11	1.18	2	4
	Funds from other companies	83.5	12.0	13.0	2.6	0.0	1.24	0.613	4	15

Where- WS: indicates rank within sources; FSA: indicates rank for all sources

Among informal sources of financing, the respondents most commonly used trade credit followed by family friends and relatives and money lenders. According to De (2010),

informal sources contribute 50% to the total funding of Indian SMEs. The respondents did not report using external equity financing.

The results are in line with the findings of Dogra and Gupta (2009). This indicates that Indian SMEs employ>50% of their own funds in capital structure. These firms consider debt or borrowed funds in a very small percentage. Further, Singh and Janor (2013) also concluded that financing decisions of SMEs are based on the requirements of funds, and normally, these firms require working capital for running business. This will thus direct these firms towards short-term financing more as compared to long-term financing.

6.6.3 Comparative Analysis of Financing Preferences and Practices of SMEs

This study further examines the statistical differences between financing preferences and practices. Paired t-tests were used to examine the mean difference of financing preferences and practices reported by the responding SMEs. Table 6.11 shows that a statistically significant difference at the 0.01 level exists between IEF_PREF and IEF_PRAC, STF_PREF and STF_PRAC, LTF_PREF and LTF_PRAC. This evidence suggests the deliberate use of informal sources of financing.

Table 6.11 Mean Differences between Financing Preferences and Practices of Indian SMEs

This table reports the results of paired t-tests based on the mean difference between comparable financing sources. The financing sources are IEF = internal equity financing, STF = short-term financing, LTF = long-term financing, and OFF = other forms of financing. Note that PREF= Preferences and PRAC= Practices

Pairs	Mean Differences	Standard Deviation	t-statistic
IEF_PREF − IEF_PRAC	0.079	0.458	3.022*
STF_PREF − STF_PRAC	0.456	0.697	11.485*
LTF_PREF − LTF_PRAC	1.310	0.904	25.457*
OFF_PREF − OFF_PRAC	−0.045	0.524	−1.521

* indicates statistical significance at the 0.01 level.

The above findings reported the acceptance of first hypothesis of the study that financing preferences and practices are different from each other. However, the study fails to accept the hypothesis H_{1d} because usage of other forms of financing is not statistically different from the preference of respondents towards these sources. Although some SMEs prefer using formal sources, such sources are often unavailable. The statistically significant

positive mean difference between preferred and actual short-term and long-term sources implies that SME owners face problems obtaining funds from formal sources. The inability to obtain such sources could result from improper maintenance of accounting records, poor financials, high interest rates and a lack of knowledge about the availability of funds. Moreover, financial institutions may be reluctant to provide loans to SMEs above a specified limit. Complex collateral requirements and a higher moratorium period (i.e., the period between the loan approval and receipt of funds) could also discourage SMEs from obtaining funds from formal institutions. Therefore, firms try to procure funds from other financial sources.

This section has comprehensively answered the second research question of the present study. Table 6.10 and 6.11 collectively highlights the financing practices of SMEs and the statistically significant difference between financing preferences and practices of SMEs. Further, the difference between the preferred and availed financial resources has been depicted in the following section by exhibiting the evident gap in the availability and accessibility of the financial resources.

6.6.3.1 Sources of Finance Availed and Preferred by Indian SMEs

This study adopts a unique approach in assessing the source of finance in different stages of the SME's life cycle. The stages of SMEs defined for analysing the gap between availed and preferred sources of funds are *start-up stage, growth stage and maturity stage*. The respondents asked to indicate the source of finance they would have preferred during the firm's life cycle and sources of finance they had used for meeting the financial requirements. Analysis of respondent's usage and preference of funds across the different stage in the SMEs life cycle indicate an apparent finding gap between accessibility and availability of various financial resources.

The survey results demonstrate preferred financial resources of SMEs in comparison with availed financial resources by SMEs at different stages of their life cycle. Firms reported the data for the current stage of their life cycle as well as the resources procured and would be preferred by them in early stages. The values were calculated as the number of enterprises reporting the availed and preferred sources of finance at different stages of their life. Therefore, the total of all reporting enterprises will be different from the total number of enterprises in the sample.

Interestingly, the results reveal a huge gap between availed and preferred sources of finance and thereby evidently highlight the dire necessity of supply of funds from formal institutional resources. This section elaborates the sources of finance preferred and

availed by the firms at different stages of their life cycle. It thereby provides strong evidence regarding the financial constraints faced by Indian SMEs. The analysis involves comparison between used and preferred sources of finance. This is explained under two scenarios for each stage of a firm's life cycle. The first scenario explains the gap when the use of financial resources is higher than the preference and the second demonstrates the gap when preference for financial resource is higher than its use. The description of preference and use of funds at each stage is explained next.

1. **Start-up Stage-** The various sources of funds listed at the start-up stage are owner's fund, banks, government funding, financial institutions, family friends and relatives, money lenders, venture capital, business angels and crowd funding. This indicates that all modern and conventional sources of funds are listed in the study. This was done to capture the effect of the preference of the young and old firms. This is because the concept of crowd funding, venture capital and business angel is quite new in the Indian context. Therefore, it is possible that old firms may not have the availability of these resources and young firms may be availing it. It also highlights the status of these non-conventional sources of finance used or preferred by Indian SMEs.

   Table 6.12 reveals that owner's funds, funds from family friends and relatives and funds from money lenders are less preferred by owners at the start-up stage. However, there are also a significant number of respondents who have availed and preferred personal funds at the start-up stage. Therefore, the results evidently support the fact that although owner's fund is the first choice available for these firms, SMEs prefer to use other sources of finance if available to them in an adequate and timely manner.

   Further, the use of funds through these resources is relatively high as compared to that of other resources. This finding clearly points out that SME owners/managers do not prefer to employ their personal funds in their business but they are compelled to do so because of inaccessibility of other financial resources at the start-up stage.

   Moving towards formal sources of finance, the respondents preferred to obtain funds from banks, financial institutions and through government funding, but they were not able to use it as a financing option for their business. Table 6.12 presents the number of respondents availing and preferring the number of financial resources listed in the research instrument. The positive difference

between the availed and preferred sources indicates that preference is lower than the utilization while negative difference refers that utilization is lower than the preference.

Table 6.12 Sources of Finance -Start up Stage

This table presents the sources of finance availed and preferred at start-up stage by the respondents

Sources of Finance	Availed	Preferred	Difference
Own Funds	248	111	137
Banks	49	158	-109
Govt. Funding	8	86	-78
Financial Institutions	14	56	-42
Family Friends and Relatives	181	112	69
Money Lenders	20	14	6
Venture Capital	0	17	-17
Business Angel	0	19	-19
Crowd Funding	2	2	0

2. **Growth Stage-**This is mainly characterized by the procedure of establishing a firm in the market along with the planning of its expansion. Firms at this stage require finance in the form of working capital facilities, bank overdraft, cash credit and funds for investment in the capacity and quality of the business. This will thereby help in increasing credibility of the firm among the customers and in the market. The funding gap between the availed and preferred resources evidently indicates financing constraints faced by SMEs.

Most of the respondents availed owner's fund, retained earnings and funds from family friends and relatives; however, most of them did not prefer to use them for their business financing activities. The respondents equally preferred and availed funds from money lenders at this stage.

Further, the use of bank financing showed an increase from the start-up stage to the growth stage, but preference is still on the higher side. On the contrary, a major financing gap is revealed between preference and use of funds from financial institutions and government schemes. Respondents preferred to use funds from these formal resources but are not able to access these resources. The plausible explanation for this could be reluctance of lenders and financiers due to low profitability, high mortality rates and no systematic presentation and preparation of financial records.

Table 6.13 presents the number of respondents availing and preferring the listed financial resources.

Table 6.13 Sources of Finance -Growth Stage

This table presents the sources of finance availed and preferred at the growth stage by the respondents

Sources of Funds	Availed	Preferred	Difference
Own Funds	174	74	100
Retained Earnings	217	112	105
Banks	121	134	-13
Govt. Funding	10	128	-118
Financial Institutions	14	65	-51
Family Friends and Relatives	95	10	85
Money Lenders	16	12	4
Venture Capital	2	46	-44
Business Angel	0	34	-34
Crowd Funding	2	2	0

The positive difference between the availed and preferred sources indicates that preference is lower than the utilization while negative difference refers that utilization is lower than the preference.

3. **Maturity Stage-**This stage is characterized by the fact that firms are well established in the market and have been operating for>10 years. However, the differences between used and preferred sources of finance still persist at this stage, but a remarkable difference is seen in the use and preference of bank financing. The difference is considerably narrowed down for the firms operating at the maturity stage. Further, the preference for funds from the government and financial institutions is still high as compared to the use of these resources. Furthermore, the respondents were still availing funds from family, friends and relatives and money lenders. The use of funds from venture capital and business angels is still negligible. Table 6.14 presents the number of respondents availing and preferring the listed number of financial resources at the maturity stage. The positive difference between the availed and preferred sources indicates that preference is lower than the utilization while negative difference refers that utilization is lower than the preference. The findings indicate that there is a huge difference between financing preferences and practices of a firm. According to

Berger and Udell (1998), the size of the investment increases with the age of the firm. Funding is mostly informal at early stages of a firm's life cycle and gradually shifts towards the formal side due to reduced information asymmetry and increased creditworthiness in the market.

Table 6.14 Sources of Finance –Maturity Stage

This table presents the sources of finance availed and preferred at the maturity stage by the respondents

Sources of Funds	Availed	Preferred	Difference
Own Funds	148	66	82
Retained Earnings	164	116	48
Banks	76	87	-11
Govt. Funding	22	80	-58
Financial Institutions	10	94	-84
Family Friends and Relatives	90	24	66
Money Lenders	45	22	23
Venture Capital	0	54	-54
Business Angel	2	24	-22
Crowd Funding	0	0	0

Gudov (2013) documented that seed capital is predominated by love capital (funds from family friends and relatives) for early entrepreneurs. However, the findings of the present study are in line with the findings of Gudov, but the persistence of informal resources is observed throughout the firm's life cycle. This undoubtedly indicates the heavy reliance of Indian SMEs on informal resources along with internal resources of finance. Further, the percentage of business angel financing is low in Russia similar to that for Indian SMEs. Mac an Bhaird and Lucey (2011) also studied the financing preferences of SMEs across their life cycle. The research supports POT and also documents the heavy reliance of young SMEs on debt as compared to other resources. The difference in the findings is mainly because of the contextual settings of the countries. In India, debt market is still developing for firms in general and SMEs in particular. Moreover, Ireland is a developed economy and SMEs probably have relinquished higher accessibility and availability of funds as compared to India.

Overall, the section illustratively presents the difference between financing preferences and practices of Indian SMEs. This visibly points out the persistent funding gap throughout the firm's life cycle.

6.6.4 Association between Financing Preferences and Practices

The second objective of the study was to examine the strength of association between the preferences and practices of SMEs on financing sources. The objective was assessed by

examining the correlation between financing preferences and practices of Indian SMEs. The variables corresponding to financing preferences and practices were measured on interval scale and fulfill all the assumptions corresponding to the parametric tests. Therefore, Pearson's coefficient of correlation was used to gauge the association between the variables under examination

Table 6.14 indicates that the strongest statistically significant positive correlation occurs between OFF_PREF and OFF_PRAC (0.672) followed closely by IEF_PREF and IEF_PRAC (0.654). Table 6.15 shows other statistically significant positive and negative correlations. Respondents expressing a high use of IEF prefer IEF_PREF and OFF_PREF to STF_PREF and LTF_PREF for meeting their financing needs. Similarly, those who use STF and LTF prefer more formal financial resources to internal funds. Further, owners/managers stating high use of OFF tend to prefer OFF_PREF, IEF_PREF and STF_PREF. Yet, respondents expressing a preference for EEF exhibit a negative correlation with OFF_PRAC.

The above results expressively depict the association between financing preferences and financing practices of SMEs and thereby study fails to reject the second hypothesis related with the existence of significant association between financing preferences and practices of SMEs.

Table 6.15 Correlation between Financing Preferences and Practices of Indian SMEs

This table reports the correlation between financing preferences (PREF) and practices (PRAC) of responding Indian SMEs. The financing sources are IEF = internal equity financing, STF = short-term financing, LTF = long-term financing, OFF = other forms of financing, and EEF = external equity financing.

	IEF_PREF	STF_PREF	LTF_PREF	OFF_PREF	EEF_PREF
IEF_PRAC	0.654*	0.036	0.111	0.241*	−0.049
STF_PRAC	0.077	0.620*	0.373*	0.237*	−0.035
LTF_PRAC	0.002	0.251*	0.383*	0.039	−0.037
OFF_PRAC	0.179*	0.151*	0.014	0.672*	−0.217*

* indicates statistical significance at 0.01 level

6.6.5 Financing Preferences across Firm-Specific Characteristics

The analyses of financing preferences of SMEs were also done based on variation observed across firm and owner/manager characteristics. Both types of characteristics could affect financing preferences (Abdulsaleh and Worthington, 2013). The difference in

preferences across firm-specific characteristics (i.e., legal status, business stage, firm size, sector, and export activity) was studied. The financing preferences are IEF, STF, LTF, OFF and EEF. The financing preferences were measured on a five-point scale, where 1 = very low preference, 2 = low preference, 3 = neither high nor low preference, 4 = high preference and 5 = very high preference..

Table 6.16 Financing Preferences across Firm-Specific Factors

This table examines the difference in financing preferences across firm-specific factors: legal status, business stage, firm size, sector, and export activity.

| | | | **Financing Preferences** | | | | |
			IEF	STF	LTF	OFF	EEF
Legal Status	Sole proprietorship		3.472	2.629	2.927	2.420	1.760
	Partnership	Mean	3.509	2.924	3.111	2.517	1.935
	Private limited firm		3.667	3.181	3.406	2.750	2.013
	Levene's test for equality of variance	*Levene's statistic*	*4.594**	*5.960*	*13.637*	*2.333*	*2.204*
	One-way ANOVA	*F-statistic*	*3.807**	*16.989*	*8.220*	*8.270*	*2.395*
Business State	Start-up		3.333	2.485	2.939	2.220	2.101
	Growth	Mean	3.510	2.956	3.216	2.527	2.069
	Maturity and expansion		3.609	2.920	3.121	2.635	1.739
	Levene's test for equality of variance	*Levene's statistic*	*2.623*	*5.393*	*0.488*	*3.252**	*1.603*
	One-way ANOVA	*F-statistic*	*3.767**	*5.286*	*1.142*	*6.176*	*5.351*
Firm Size	Micro		3.484	2.524	2.805	2.381	1.758
	Small	Mean	3.528	3.162	3.410	2.728	1.989
	Medium		4.185	3.194	3.512	2.361	1.963
	Levene's test for equality of variance	*Levene's statistic*	*3.508**	*4.584**	*4.649**	*7.399*	*4.583**
	One-way ANOVA	*F-statistic*	*13.679*	*32.208*	*17.074*	*12.269*	*2.414*
Sector	Manufacturing	Mean	3.549	3.020	3.258	2.609	1.906
	Service		3.535	2.236	2.528	2.292	1.792
	Levene's test for equality of variance	*F-statistic*	*4.926**	*2.823*	*10.551*	*0.232*	*2.637*
	Independent t-test	*t-statistic*	*0.149*	*6.896*	*4.547*	*3.331*	*0.826*
Export Activity	Exporters	Mean	3.505	3.476	3.217	2.828	2.052
	Non-exporters		3.568	2.590	3.091	2.419	1.804
	Levene's Test for equality of variance	*F-statistic*	*17.153*	*0.190*	*16.499*	*8.720*	*0.403*
	Independent t-test	*t-statistic*	*−0.934*	*11.464*	*1.284*	*5.093*	*2.264*

*, ** indicate significance level of 0.01 and 0.05 level, respectively

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Based on analysis of the normality of the distributions (explained earlier), parametric tests were used. These differences were examined by using an independent t-test and one-way ANOVA. Based on the ANOVA, H_0 states that no significant difference exists among the means of each firm characteristic for each financing preference. H_1 states that at least one mean is different. Table 6.16 shows that the F-statistics indicate statistically significant differences among sole proprietorships, partnerships and private limited firms for IEF, STF, LTF and OFF. For each of these financing preferences, the means become increasingly higher when moving from a sole proprietorship to a partnership and then to a private limited firm. However, despite a firm's legal status, IEF is the highest preferred financing source among the responding Indian SMEs.

The results are consistent with those of Abor (2008) who suggested that legal status is an important factor in deciding the type of funds that firms use. Van Auken and Neeley (1996) also found that ownership structure and firm type affect financing. Their evidence confirms that respondent preferences vary across sole proprietorships, partnerships and private limited firms.

Table 6.16 also shows that financing preferences differ across the following business stages: (1) start-up, (2) growth and (3) maturity and expansion. As firms grow older, their financing preference for IEF and OFF increases. As companies move out of the start-up stage, their preferences for both STF and LTF increase. A plausible explanation for this finding is that lending institutions are skeptical of younger firms because of information opacity and less creditworthiness (Berger and Udell, 1998).Therefore, firms in the start-up stage generally prefers personal savings and owner funds.

Financing preferences also vary across micro-, small- and medium-size firms. Micro-and small-size firms require relatively less funds than their medium-size counterparts. The one-way ANOVA shows statistically significant size differences in respondent preferences for IEF, STF, LTF and OFF. As firm size increases, the preference for IEF, STF and LTF also increases, as indicated by their means. Thus, increasing a firm's size requires greater levels of funding to finance the business.

The independent t-tests in Table 6.16 show that preferences for STF, LTF and OFF differ significantly between manufacturing and service firms. Specifically, manufacturing firms prefer higher levels of these financing sources than do service firms. Such preferences could depend on the accessibility of such funds. Manufacturing SMEs with tangible assets are more likely to obtain financing from external sources than are service firms with fewer tangible assets.

The research findings are generally consistent with those of Kumar and Rao (2016) who reported differing financing patterns between Indian SMEs in the manufacturing and service sectors. Finally, export activity affects the financing preferences of Indian SMEs as shown by the statistically significant t-tests for STF, OFF and EEF. The results show that export oriented firms prefer more STF, OFF and EEF as compared to non-exporters. The significant difference between financing preferences across firm specific characteristics indicates the acceptance of third hypothesis for the study

6.6.6 Financing Preferences across Owner/Manager Characteristics

Financing preferences are not only governed by firm characteristics but also by management behaviour towards the source of financing (Nguyen and Ramachandran, 2006). This section deals with the difference in financing preferences across respondent demographics including gender, age, education, experience and ownership.

Male and female business owners have different views about business financing. Verheul and Thurik (2001) classified the impact of gender on SMEs' financing into direct and indirect effects. A direct effect involves how male and female entrepreneurs finance their firms, whereas an indirect effect refers to differences in business type, management and experience. According to Watson *et al.* (2009), females are more risk averse and hesitant to access external sources of funds. Harrison and Mason (2007) found differences in male and female entrepreneurs based on discrimination, abilities, preferences and competition.

This study highlights financing preferences across owner/manager characteristics. Table 6.17 shows statistically significant differences between male and female preferences for IEF, LTF, OFF and EEF. Contrary to the findings of Watson *et al.* (2009), our results show that females prefer a higher level of EEF than their male counterparts. However, women prefer a lower level of IEF, LTF and OFF than do men. The F-statistics in Table 6.17 indicates that age significantly affects financing preferences for IEF, STF, OFF and EEF. Of these preferences, the most consistent pattern involves age and IEF. Specifically, the financing preference for IEF increases with each successively older age category. Respondents who are >65 years of age indicate the strongest preference among the age groups for EEF.

According to Briozzo and Vigier (2009), obtaining external funds from formal institutions becomes less difficult with increasing age. Table 6.17 also reveals a statistically significant difference between educational level and financing preference for IEF and OFF.

Table 6.17 Financing Preferences across Owner/Manager Characteristics

This table shows the difference in financing preferences across the Indian SMEs on owner/manager characteristics: gender, age, education, and experience with the present business, and ownership.

			IEF	STF	LTF	OFF	EEF
					Financing Preferences		
Gender	Male	Mean	3.575	2.874	3.170	2.585	1.811
	Female		3.350	2.961	2.871	2.346	2.410
	Levene's test for equality of variance	*Levene's statistic*	*19.723**	*0.000*	*5.101***	*1.518*	*0.042*
	Independent t-test	*t-statistic*	*3.883**	*−0.668*	*2.595***	*2.191**	*−3.922**
Age	Less than 25 years		3.048	2.500	3.191	2.214	1.667
	26 to 35years		3.406	2.779	3.034	2.243	2.237
	36 to45 years	Mean	3.470	2.763	3.074	2.479	1.863
	46 to 55 years		3.655	3.025	3.196	2.840	1.700
	56 to 65 years		3.872	2.904	3.487	2.596	1.564
	More than 65 years		4.111	3.667	3.111	2.000	2.889
	Levene's test for equality of variance	*Levene's statistic*	*2.515***	*0.516*	*3.881**	*4.499**	*6.552**
	One-way ANOVA	*F–statistic*	*5.745**	*3.281**	*0.728*	*11.150**	*5.228**
Education	School certificate		3.473	3.005	3.147	2.670	1.793
	Diploma	Mean	3.333	2.803	3.035	2.776	1.526
	Bachelor's degree		3.672	2.809	3.151	2.773	1.849
	Master's degree		3.473	2.933	3.122	2.216	2.033
	Levene's test for equality of variance	*Levene's statistic*	*1.465*	*2.158*	*6.731**	*1.742*	*9.864**
	One-way ANOVA	*F-statistic*	*4.101**	*1.060*	*0.095*	*19.709**	*2.218*
Experience with Present Business	Low		3.271	2.437	2.583	2.094	2.312
	Moderate	Mean	3.379	2.747	3.142	2.260	2.173
	High		3.623	2.964	3.170	2.686	1.761
	Levene's test for equality of variance	*Levene's statistic*	*0.257*	*0.192*	*0.358*	*7.510**	*1.675*
	One-way ANOVA	*F-statistic*	*7.552**	*5.249**	*3.028***	*18.351**	*7.779**
Ownership	Yes	Mean	3.552	2.880	3.146	2.579	1.858
	No		3.400	3.050	2.733	1.850	2.733
	Levene's test for equality of variance	*Levene's statistic*	*2.022*	*0.127*	*0.032*	*1.497*	*5.454***
	Independent t-test	*t-statistic*	*0.843*	*−0.693*	*1.387*	*3.606**	*−4.413**

*, ** indicate statistical significance at the 0.01 and 0.05 level respectively

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However, the relationship between educational level and these financing preferences varies. Unlike Coleman (2007) and Borgia and Newman (2012), our results do not show a positive relationship between the educational level of SME owners/managers and leverage. Table 6.17 shows that financing preferences of respondents with low, moderate and high experience of running their current businesses differ significantly for IEF, STF, LTF, OFF and EEF. Respondents with more experience in the present business exhibit a stronger preference for IEF but a lesser preference for EEF. The preferences for STF, LTF and OFF increase with business experience.

The final owner/manager characteristic is ownership. Indian SMEs typically have highly concentrated ownership. Table 6.17 indicates that financing preferences differ significantly for OFF and EEF. Owners exhibit a higher preference for OFF and a lower preference for EEF relative to non-owners. The significant difference between financing preferences across owner specific characteristics indicates the acceptance of fourth hypothesis for the study.

6.6.7 Correlation Analysis

This section seeks to investigate statistically significant associations between manager's characteristics and their preferences for different sources of financing. Financing preferences were measured on continuous scales and have also met all the assumptions of parametric tests but the independent variables are either measured on a nominal scale or ordinal scale. Therefore, bi-variate association between the variables was examined by two different statistical tests. Spearman coefficient of correlation was used to examine the measure of association between interval and ordinal variables and association between nominal and interval scale variables was tested using point-bi-serial coefficient. The correlation coefficient between SME owner/manager' age is statistically significant for IEF_PREF (0.216), STF_PREF (0.185), OFF_PREF (0.301) and EEF_PREF (-0.139). The values of the correlation coefficient signify that it is positively correlated with IEF_PREF, STF_PREF and OFF_PREF. This indicates that greater the age of the SME owner/manager, the more will their preference be for IEF_PREF, STF_PREF and OFF_PREF. Table 6.18 specifies the nature of dependent and independent variables used in the study. The results of Spearman coefficient of correlation and point bi-serial correlation coefficients are as follows-

Table 6.18- Correlation Matrix for Financing Preferences and Owner/Manager Characteristics

This table presents the correlation matrix between financing preferences and SME owner/manager attributes. VIF values also indicate that there is no issue of multi-collinearity among independent variables.

	IEF_PREF	STF_PREF	LTF_PREF	OFF_PREF	EEF_PREF
Age	0.216*	0.185*	0.047	0.301*	-0.139**
Education	0.041	-0.005	0.049	0-.332*	0.093
Experience	0.168*	0.193*	0.076	0.336*	-0.221
Gender	0.134**	0-.038	0.107	0.124**	-0.218*
Ownership	0.048	0-.040	0.079	0.202*	-0.170*

*, **indicate significance at 0.01 and 0.05 significance level respectively

On the contrary, the negative association with EEF_PREF implies that younger owners/managers prefer more EEF as compared with older owners/managers.

Further, the education of the SME owner/manager did not show any statistically significant correlation with IEF_PREF, STF_PREF, LTF_PREF and EEF_PREF. However, educational levels are statistically significant for OFF_PREF (-0.332). The negative correlation between the two implies that highly educated SME owners/managers do not prefer alternative modes of financing. Moving towards total experience of SME owners/managers, it is seen that a positive correlation exists with IEF_PREF (0.168), STF_PREF (0.193) and OFF_PREF (0.336) and a negative correlation exists with EEF_PREF (-0.221). The correlation values are statistically significant at the 1% significance level. This implies that experienced owners prefer OFF_PREF followed by STF_PREF and IEF_PREF. However, EEF_PREF was not preferred by owners having high experience.

The owner/manger's gender and ownership were measured at the nominal scale. Respondents were provided with the two mutually exclusive choices of answers which are either male (1) or female (2) and yes (1) or no (2) for gender and ownership, respectively. The dichotomous variable was changed to 1 and 0 to categorize male and female and owner and manager, respectively. After data transformation, point bi-serial coefficient which is simply a Pearson's coefficient of correlation with discrete dichotomy was applied to examine the correlation between SME owner's/manager's gender, ownership and financing preferences.

The correlation coefficient is statistically significant for IEF_PREF (0.134), OFF_PREF (0.124) and EEF_PREF (-0.218). This implies that males prefer IEF_PREF

and OFF_PREF as compared to females, whereas females prefer EEF_PREF as compared to males. Moving towards the ownership status of respondents, it was found that correlation measures are statistically significant for OFF_PREF and EEF_PREF. A positive correlation coefficient between OFF_PREF (0.202) and ownership status indicates that owners prefer OFF_PREF to other resources and A negative correlation coefficient between EEF_ PREF (-0.170) and ownership status indicates that managers prefer EEF_PREF to other resources.

6.6.8 Regression Analysis

According to Field (2009), the relationship between two variables is helpful in predicting the outcome of one variable from another. Regression analysis is basically done to predict the outcome of a variable from several predictor variables. Hair *et al.* (2007) defined regression analysis as a statistical technique that can be used to analyse the relationship between a single criterion and several predictor variables. The proportion of variations or changes in one variable can be statistically explained using regression analysis (Saunders *et al.*, 2009). The prime objective of multiple regressions is to use independent variables whose values are known to predict the single dependent variable. Multiple regressions were performed to establish a model in predicting SME owner's/manager's preferences from a set of respondent's demographics.

The current study used financing preferences as the dependent variable and demographics of the owner and the manager of SMEs as the independent variable. It includes gender, age, education, experience and ownership. The recommended model for each dependent variable was presented accordingly. It is imperative to study the assumptions of regression analysis before proceeding for further analysis. Therefore, the next section illustrates the assumptions of regression analysis.

6.6.8.1 Assumptions of Regression Analysis-The assumptions related to regression analysis are mainly concerned with the measurement and distribution of data involved in the analysis. The description of each assumption is as follows:

1. Level of Measurement- All the variables should be measured on a continuous scale. The criterion variables involved in the multiple regressions are IEF_PREF, STF_PREF, LTF_PREF, OFF_PREF and EEF_PREF. All the outcome variables were measured on interval scale (as explained in earlier section). However, the predictor variables are categorical in nature and hence can be used for analysis after little coding. Table 6 .19 presents the description of all predictor variables involved in the multiple regression analysis.

Table 6.19 Categorical Variables in Regression Model

This table presents the description of categorical variables applied in the regression analysis.

S.No.	Independent Variables	Reference Category	Coding of Dummy Variables
1	Gender (Nominal)	Female	Male =1 Female=0
2	Age (Ordinal)	56- above 65 years	Age1= <25-35years Age 2= 36-55 years
3	Education (Ordinal)	Post Graduate	Edu 1= School Certificate Edu 2= Bachelor's Degree
4	Experience (Ordinal)	High Experience (>10 years)	Exp1= Low (Less than 3 years) Exp 2= Moderate(4-10 years)
5	Ownership (Nominal)	Manager/Employee	Owner=1 ,Manager/Employee=0

The present study demonstrates the relationship of financing preferences with the help of five predictor values. The predictor variables, namely, education, age and experience, are required to be transformed to satisfy the assumption of measurement. This involves creation of dummy variables. It represents the groups using only zeros and ones. Eight dummy variables were created for SME owner's/manager's education, age, experiences, gender and ownership. This data transformation has met all the assumptions of measurement required for the use of regression analysis.

The other assumptions associated with multiple regressions were centered only on the distribution of criterion variable and the distribution of residuals According to Miles and Shevlin (2001), multi-variate analysis is mainly focused on the joint distribution of all the variables. It involves the following assumptions:

2. Normal Distribution of Residuals-The normality of the residuals was tested with the help of histograms and the normality plot of the residuals. These are presented in annexure IV.

The histograms and P-P plots (see annexure V) associated with each outcome variable roughly indicate the normal distribution. The curve on the histogram presents the shape of the residuals. The straight line in the plots presents the normal distributions and the points around these lines are presented as residuals. All points should lie on the line for a normally distributed data. A large distance from the diagonal line indicates lager deviations from normal distribution. Further, the P-P plots point out the deviation from normality. However, the deviations are not significantly large. Therefore, it can be said that residuals are normally distributed for each outcome variable

3. Homoscedasticity of Residuals-This assumption was examined by plotting a graph between *ZRESID and * ZPRED. It determines whether the variance of residuals for every set value for the predictor variable is equal or not. *ZRESID shows the values of standardized residuals or errors which are the standardized differences between the observed data and the values that model predicts, whereas *ZPRED indicates the standardized predicted values of the dependent variable based on the model. All the graphs are presented in annexure IV and VI. It has been observed that residuals are randomly and evenly distributed around zero. This implies the equal variance of residuals and thereby satisfies the condition of homoscedasticity for multi-variate analysis.

4. The mean of the residual value should be zero-This particular assumption was examined and indicated by looking at the value of the mean from the histogram presented in annexure IV. The value of the mean for each outcome variable is summarized in table 6.20.The value of the mean of the residuals for the predictor variables is observed very close to zero. This evidently accepts the assumption of normally distributed data and thereby allows the use of parametric tests in conducting multivariate analysis.

Table 6.20 Mean of Residuals for Outcome Variables

This table summarizes the mean value of residuals for the dependent variables

S. No.	Outcome Variable	Mean Value of Residuals
1	IEF_PREF	2.39E-15
2	STF_PREF	1.81E-15
3	LTF_PREF	8.93E-16
4	OFF_PREF	3.11E-16
5	EEF_PREF	1.04E-17

5. Absence of Autocorrelation-Durbin-Watson statistics was used to investigate the assumption of independence among residuals. It has been stated that for any two observations, the residual terms should be uncorrelated or independent. The Durbin-Watson test was used to examine whether adjacent residuals are correlated. The test statistic can vary between 0 and 4 with a value of 2, meaning that residuals are uncorrelated. A value >2 indicates a negative correlation between adjacent residuals, whereas a value <2 indicates otherwise. Field (2009) suggested that as a very conservative rule of thumb, values <1 or >3 are definitely a cause for concern. This rule of thumb was used to test this particular assumption. However, the Durbin-Watson test is

only appropriate for time series and/or spatial series (Chen, 2016) and the data used in the present study is cross-sectional. Table 6.21 provides a summary of Durbin-Watson statistics for both stages of regression analysis.

Table 6.21 Summary of Durbin Watson Statistics

This table summarizes the value of Durbin Watson statistics for each stage of regression analysis.

S. No.	Outcome Variable	Durbin-Watson Stage 1	Durbin-Watson Stage 2
1	IEF_PREF	1.567	1.672
2	STF_PREF	1.897	1.786
3	LTF_PREF	1.345	1.432
4	OFF_PREF	1.789	1.654
5	EEF_PREF	1.836	1.756

The above discussion indicates that all the assumptions related to the application of multivariate analysis were addressed. Therefore, the next section deals with the discussion of regression models applied in the study.

6.6.8.2 Regression Methods- Multivariate analysis commences with a discussion of models describing the determinants of managers' level of financing preferences for five different sources of financing. A general model was presented in the following equation to show the possible model in predicting the outcome variable

$$FP_{IEF, STF, LTF, OFF, EEF} = \alpha + \beta_1 Edu_i + \beta_2 Age_i + \beta_3 Exp_i + \beta_4 Gender_i + \beta_5 Own_i + \varepsilon ......eq6.1$$

The selected predictor variables in predicting the outcome variable were included on the basis of the literature. Further, the results of bi-variate association also guided the order of importance of each predictor variable in predicting the outcome variable. Regression analysis was performed in two stages. The first stage involves the hierarchical regression and forced entry of the variables and the second stage is based on the results of the first stage model. A forward stepwise method was adopted for the analysis in the second stage. The research findings of the first stage of regression analysis performed in this study are presented in annexure VII. Discussions of regression results for each outcome variables under study are presented on the basis of the second stage of the regression analysis-

Model 1: This examines the relationship between IEF_PREF and SME owner's/manager's demographics.

The first stage of regression analysis includes the hierarchical forced entry method of independent variables. The variables were chosen based on their importance in predicting

the relationship. This was done in two ways- (1) by analysing the literature and (2) by identifying the correlation measure between variables. The variables demonstrating high correlation measures with IEF_PREF were entered first followed by the others. The variables exhibiting a high statistically significant association are level of education (Bachelors v/s Postgraduate), experience (Low v/s high) and gender of respondents.

A summary of test results for the first stage of regression analyses is presented in annexure VII. It involves five hierarchical stages and thereby results in five different models. In model 1, the value of R^2 is 0.035 for the level of education (Bachelors v/s Postgraduate). This implies that it accounts for only 3.5% of the variation in a manager's level of preference for IEF. However, when all the predictors were inserted in the regression, the value of R^2 was changed to 0.104. The inclusion of other variables explained another 7% variation of the outcome variable.

Among all five different models, it is observed that Model 1 (with the highest F) and Model 5 (with the highest R) are the appropriate models for predicting IEF_PREF. Among these models, five variables are found to be statistically significant and included in the second stage of the regression analysis. The five variables are level of education (Bachelor's v/s Postgraduate), age of respondents (<25-35 v/s 56-above 65 and 36-55 v/s56-above 65) experience (Low v/s high) and gender of the respondents. The tables 6.22 and 6.23 present the results of stepwise regression analysis.

Table 6.22 Correlation Matrix for IEF_PREF

This table presents the results of the correlation analysis for the significant predictor variables

	IEF_PREF	**Edu 2**	**Age 1**	**Age 2**	**Exp 1**	**Gender**
IEF_PREF	1.000					
Edu 2	0.189*	1.000				
Age 1	-0.178*	-0.358*	1.000			
Age 2	0.071	0.304*	-0.857	1.000		
Exp 1	-0.199*	-0.155*	0.524*	-0.431*	1.000	
Male	0.134*	-0.036	-0.145*	0.085	-0.071	1.000

*indicates significance at 0.01 significance level

Table 6.23 Results of Stepwise Regression (for IEF_PREF)

This table presents the results of stepwise regression. The dependent variable is IEF_PREF and the predictor variables are selected on the basis of first stage of regression analysis

Significant Models	Variables	β Coefficient	Standard Error	t- statistics	*p value*
Model 1	Constant	3.596	0.034	105.295	*0.000**
	Exp 1	-0.303	0.085	-3.564	*0.000**
Model 2	Constant	3.514	0.044	79.614	*0.000**
	Exp1	-0.265	0.085	-3.115	*0.002**
	Edu 2	0.183	0.064	2.875	*0.004**
Model 3	Constant	3.320	0.094	35.257	*0.000**
	Exp1	-0.249	0.085	-2.947	*0.003**
	Edu 2	0.190	0.063	3.004	*0.003**
	Male	0.215	0.093	2.324	*0.021**

*indicates significance at 0.01 significance level

The above results indicate that variables, namely, level of education (Bachelor's v/s Postgraduate), experience (Low v/s high) and gender of respondents are found to be statistically significant at the 1% and 5% significance levels. The model explains the 8.1% variance of the outcome variable. The final model can be represented as follows:

$$FP_{IEF} = 3.320 - 0.249Edu1 + 0.190Exp1 + 0.215Male...eq6.2$$

The value of β coefficients indicates the direction and the magnitude of the relationship between the dependent and independent variables. The level of education is negatively related to financing preferences for internal funds between the reference category (post graduate) and graduates. This implies that respondents having a graduate degree give low preference to internal finances as compared to postgraduates. This indicates that higher education helps in developing the understanding of merits and demerits of financial resources and shows more signs of financial contentment as they are wiser and have ability to judge the betterment of firm in the long term. Hence, highly educated owners prefer more internal financing. It indicates that educational level is positively related with the financing preferences for internal resources. The findings are consistent with the Vos *et al.* (2007). They asserted that highly educated owners make less use of debt and thereby utilize more internal resources. Further, a positive relationship between experience and IEF indicates that the respondents having less than three years of working experience prefer more internal funds as compared to those having high working experience. It might be because more experienced owners are more likely to recognize the

tax advantage of debt (Zhang, 2008; Bell and Vos, 2009). Further, higher experience of owners possibly increases the creditworthiness of the firm (Cassar, 2004). The results are consistent with Borgia and Newman (2012). Moving forward, males prefer more IEF than do female owners. The above results support the hypotheses H $_{5a}$.

Model 2: This examines the relationship between STF_PREF and SME owner's/manager's demographics.

This section examines the relationship between short-term financing preferences and demographics of the respondents. It also incorporates two levels of regression analysis as applied for model 1.

The first stage of regression involves inclusion of independent variables through hierarchical and forced entry method. The variables were chosen based on their importance in predicting the relationship. This was done in two ways: (1) by analysing the previous literature and (2) by identifying the correlation measure between variables. The variables demonstrating high correlation measures with STF_PREF were entered first followed by the others. The only variable exhibiting a high statistically significant association is experience (Low v/s high) of respondents having a p value < .01.

A summary of test results for the first stage of regression analyses is presented in annexure VII. This involves five hierarchical stages and thereby results in five different models. In model 2, the value of R^2 is 0.055 for experience (Low v/s high). This implies that it accounts for only 5.5% of the variation in manager's level of preference for STF. However, when all the predictors are inserted in the regression, the value of R^2 is changed to 0.098. The inclusion of other variables explained another 4% variation of the outcome variable.

Among all five different models, it is observed that Model 1 (with the highest F) and Model 5 (with the highest R) are the appropriate models for predicting STF_PREF. Among these models, three variables are found to be statistically significant and included in the second stage of the regression analysis. The three variables are level of experience (Low v/s high and moderate v/s high) and level of education (Bachelor's v/s Post graduate) of the respondents. The tables 6.24 and 6.25 present the results of regression analysis.

Table 6.24 Correlation Matrix for STF_PREF

This table presents the results of the correlation analysis for the significant predictor variables

	STF_PREF	Edu 2	Exp 1	Exp 2
STF_PREF	1.000			
Edu 2	0.084	1.000		
Exp1	-0.199*	-0.155*		
Exp 2	-0.074	-0.022	-0.240*	1.000

*indicates significance at 0.01 significance level

The results presented in table 6.24 indicate that variables such as experience (Low v/s high and Moderate v/s high) and level of education (Bachelor's v/s Postgraduate) of respondents are found to be statistically significant at the 1% and 5% significance levels. These variables collectively explain the 7.1% variance of the outcome variable. The final model can be represented as follows:

$$FP_{STF} = 3.108-0.521Exp1-0.124Exp2-0.196Edu1 .... eq. 6.3$$

Table 6.25 Results of Stepwise Regression-Stage 2 (STF_PREF)

This table presents the results of stepwise regression. The dependent variable is STF_PREF and the predictor variables are selected on the basis of first stage of regression analysis

Significant Models	Variables	β Coefficient	Standard Error	t- statistics	*p value*
Model 1	Constant	2.952	0.047	63.338	*0.000**
	Exp 1	-0.412	0.116	-3.554	*0.000**
Model 2	Constant	3.016	0.054	55.503	*0.000**
	Exp1	-0.476	0.119	-4.015	*0.000**
	Exp 2	-0.117	0.052	2.257	*0.025***
Model 3	Constant	3.108	0.068	46.018	*0.000**
	Exp1	-0.521	0.119	-4.360	*0.000**
	Exp 2	-0.124	0.052	-2.408	*0.017***
	Edu 2	-0.196	0.087	-2.259	*0.025***

*, ** indicate significance at 0.01 and 0.05 significance level respectively

The value of β coefficients indicates the direction and the magnitude of the relationship between the dependent and independent variables. All the predictor variables are negatively related to short-term financing preferences. This implies that highly educated respondents along with high experience prefer short-term financing resources. The findings are in line with Coleman and Cohn (2000) and Cassar (2004) who reported experienced owner manager prefer debt over equity. Further, due to high credibility and knowledge these owner –manager can easily access the debt financing. However, the present study reported this relationship in terms of short term debt and it further implies

that either the long term debt capital is not preferred or not accessible to them. The empirical relationship predicted by this model supports the hypothesis H_{7b} of this study.

Model 3- This examines the relationship between LTF_PREF and SME owner's/manager's demographics.

The first stage of the regression analysis includes the hierarchical forced entry method of independent variables. The variables are chosen based on their importance in predicting the relationship. This was done in two ways: (1) by analysing the previous literature and (2) by identifying the correlation measure between the variables. The variables demonstrating high correlation measures with LTF_PREF were entered first followed by the others. The variable exhibiting a statistically significant association is only gender of the respondents. A summary of test results for the first stage of regression analyses is presented in annexure VII.

 It involves four hierarchical stages and thereby results in four different models. The F statistics revealed that only the first model is statistically significant at the 10% significance level. The statistical power of this model is very low and thereby point out that there should be inclusion of other explanatory variables in for predicting the long term financing preferences of SME owners.

Table 6.26 Correlation Matrix for LTF_PREF

This table presents the results of the correlation analysis for the significant predictor variables

	LTF_PREF	**Gender**
LTF_PREF	1.000	
Male	0.107**	1.000

**indicates significance at 0.05 significance level

Table 6.27 Results of Stepwise Regression-Stage 2 (LTF_PREF)

This table presents the results of stepwise regression. The dependent variable is LTF_PREF and the predictor variables are selected on the basis of first stage of regression analysis.

Significant Models	**Variables**	**β Coefficient**	**Standard Error**	**t- statistics**	***p value***
Model 1	Constant	2.872	0.148	19.427	*0.000**
	Male	0.299	0.158	1.888	*0.060****

*, *** indicate significance at 0.01 and 0.10 significance level respectively

The model can be represented as follows:

FP_{LTF} = 2.872+0.299Male………………………………………………………eq6.4

Gender is positively related to long-term financing preferences. This implies that males prefer more long-term loans as compared to female respondents. The findings are consistent with Carter and Rosa (1998) and Watson (2006). They reported that males prefer more external debt financing than females. The results also support the hypothesis H_{5c} of this study.

Model 4- This examines the relationship between OFF_PREF and SME owner's/manager's demographics.

The first stage of the regression analysis includes the hierarchical forced entry method of independent variables. The variables were chosen based on their importance in predicting the relationship. This was done in two ways: (1) by analysing the previous literature and (2) by identifying the correlation measure between variables. The variables demonstrating high correlation measures with OFF_PREF were entered first followed by the others. The variables exhibiting a high statistically significant association are level of education (Bachelors v/s Postgraduate), age of the respondents, experience (Low v/s high), gender and ownership status of respondents.

A summary of test results for the first stage of regression analyses is presented in annexure VII. This involves five hierarchical stages and thereby results in five different models. In model 1, the value of R^2 is 0.161 for the level of education (Bachelors v/s Postgraduate). This implies that it accounts for only 16.1% of the variation in manager's level of preference for OFF. However, when all the predictors were inserted in the regression, the value of R^2 changed to 0.205. The inclusion of other variables explained another 4.5% variation of the outcome variable.

Among all five different models, it is observed that Model 1 (with the highest F) and Model 5 (with the highest R) are the appropriate models for predicting OFF_PREF. Among these models, three variables are found to be statistically significant and included in the second stage of regression analysis. The three variables are level of education (School v/s Post graduate, Bachelor's v/s Post graduate) and ownership of the respondents. The following tables 6.28 and 6.29 present the results of the analysis.

Table 6.28 Correlation Matrix for OFF_PREF

This table presents the results of the correlation analysis for the significant predictor variables

	OFF_PREF	Edu 1	Edu 2	Ownership
OFF_PREF	1.000			
Edu 1	0.121**	1.000		
Edu 2	0.287*	-0.451*		
Ownership	0.202*	0.098**	0.080	1.000

*,** indicates significance at 0.01 and 0.05 significance level respectively

Table 6.29 Results of Stepwise Regression-Stage 2(for OFF_PREF)

This table presents the results of stepwise regression. The dependent variable is OFF_PREF and the predictor variables are selected on the basis of first stage of regression analysis.

Significant Models	Variables	β Coefficient	Standard Error	t- statistics	*p value*
Model 1	Constant	2.401	0.046	52.437	*0.000**
	Edu 2	0.373	0.071	5.252	*0.000**
Model 2	Constant	2.217	0.056	39.843	*0.000**
	Edu 2	0.557	0.076	7.311	*0.000**
	Edu 1	0.483	0.090	5.358	*0.025**
Model 3	Constant	1.744	0.185	9.431	*0.000**
	Edu 2	0.529	0.076	6.940	*0.000**
	Edu 1	0.446	0.052	-2.408	*0.017**
	Ownership	0.509	0.087	-2.259	*0.008**

*indicates significance at 0.01 significance level

The above results indicate that variables such as level of education (School v/s Postgraduate and Bachelors v/s Post graduate) and ownership of respondents are found to be statistically significant at the 1% significance level. The model explains the 18% variance of the outcome variable. The final model can be represented as follows:

FP_{OFF} = 1.744+0.529Edu1 +0.446 Edu 2 +0.509Ownership......................................eq 6.5

The value of β coefficients indicates the direction and the magnitude of the relationship between the dependent and independent variables. The level of education is positively related to financing preferences for other financial sources between the reference category (post graduate) and graduates as well as those having school certificate. This implies that highly educated SME owner/manager prefers less OFF than those having school certificate and bachelor's degree. Further, a positive relationship between ownership and OFF indicates that owners prefer financing through trade credit, family friends and

relatives and money lenders as compared to non owners or employees of the firm. The findings support hypothesis H_{9e}.

Model 5- This examines the relationship between EEF_PREF and SME owner's/manager's demographics.

The first stage of regression analysis includes the hierarchical forced entry method of independent variables. The variables were chosen based on their importance in predicting the relationship. This was done in two ways: (1) by analysing the previous literature and (2) by identifying the correlation measure between the variables. The variables demonstrating high correlation measures with EEF_PREF were entered first followed by the others. The variables exhibiting a high statistically significant association are age, gender, ownership and experience of the respondents.

A summary of test results for the first stage of regression analyses is presented in annexure VII. It involves five hierarchical stages and thereby results in five different models. In model 1, the value of R^2 is 0.038 for the age of the respondent (Bachelors v/s Postgraduate). This implies that it accounts for only 3.8% of the variation in manager's level of preference for EEF. However, when all the predictors were inserted in the regression, the value of R^2 was changed to 0.105. The inclusion of other variables explained another 7% variation of the outcome variable.

Among all five different models, it was observed that Model 2 (with the highest F) and Model 5 (with the highest R) as the appropriate models for predicting EEF_PREF. Among these models, three variables were found to be statistically significant and included in the second stage of the regression analysis. The three variables are gender, ownership and experience (Moderate vs high) of the respondents. The following tables 6.30 and 6.31 present the results of the analysis.

Table 6.30 Correlation Matrix for EEF_PREF

This table presents the results of the correlation analysis for the significant predictor variables

	EEF_PREF	Exp 2	Gender	Ownership
EEF_PREF	1.000			
Exp 2	0.175*	1.000		
Male	-0.218*	-0.209*		
Ownership	0.171*	0.100**	0.151*	1.000

*, ** indicate significance at 0.01 and 0.05 significance level respectively

Table 6.31 Results of Stepwise Regression-Stage 2 (for EEF_PREF)

This table presents the results of stepwise regression. The dependent variable is EEF_PREF and the predictor variables are selected on the basis of first stage of regression analysis

Significant Models	Variables	β Coefficient	Standard Error	t- statistics	*p value*
Model 1	Constant	2.410	0.143	16.879	*0.000**
	Male	-0.599	0.153	-3.922	*0.000**
Model 2	Constant	3.058	0.294	10.390	*0.000**
	Male	-0.541	0.153	-3.532	*0.000**
	Ownership	-0.722	0.288	-2.510	*0.013***
Model 3	Constant	2.999	0.292	10.273	*0.000**
	Male	-0.442	0.156	-2.840	*0.004**
	Ownership	-0.831	0.287	-2.894	*0.005**
	Exp 2	0.170	0.061	2.789	*0.006**

*, ** indicate significance at 0.01 and 0.05 significance level respectively

The above results indicate that variables such as level of education (Bachelor's v/s Post graduate), experience (Low v/s high) and gender of respondents were found to be statistically significant at the 1% significance level. The model explains the 8.1% variance of the outcome variable. The final model can be represented as follows:

$$FP_{EEF} = 2.999-0.442Male-0.831Ownership+0.170\ Exp2.........\ldots\ldots\ldots\ldots\ldots eq6.6$$

The value of β coefficients indicates the direction and the magnitude of the relationship between dependent and independent variables. The gender and ownership status seems to be negatively related to external equity financing preferences. This implies that female respondents prefer more equity from outside as compared to male respondents. In contrast, owners prefer less external equity as compared to non-owners. The experience is positively related to financing preferences for external equity between the reference category (experience of more than 10 years) and experiences for less than 10 years. It indicates that respondents having a working experience of less than 10 years prefer more external funds as compared to those having an experience >10 years. The findings have been found in support with hypotheses H_{5d}, H_{8d} and H_{9d}.

Table 6.32-Summary of Hypotheses Associated with Relationship between Financing Preferences and SME owner/manager attributes

S. No.	Hypotheses	Accepted/Rejected
H_{5a}	Gender is positively related to IEF	Accepted
H_{5b}	Gender is positively related to STF	Rejected
H_{5c}	Gender is positively related to LTF	Accepted

H_{5d}	Gender is negatively related to EEF.	Accepted
H_{5e}	Gender is positively related to OFF	Rejected
H_{6a}	Age is positively related to IEF	Rejected
H_{6b}	Age is positively related to STF	Rejected
H_{6c}	Age is positively related to LTF	Rejected
H_{6d}	Age is negatively related to EEF.	Rejected
H_{6e}	Age is positively related to OFF	Rejected
H_{7a}	Educational level is positively related to IEF	Rejected
H_{7b}	Educational level is positively related to STF	Accepted
H_{7c}	Educational level is positively related to LTF	Rejected
H_{7d}	Educational level is negatively related to EEF.	Rejected
H_{7e}	Educational level is positively related to OFF	Rejected
H_{8a}	Experience is positively related to IEF	Rejected
H_{8b}	Experience is negatively related to STF	Accepted
H_{8c}	Experience is positively related to LTF	Rejected
H_{8d}	Experience is negatively related to EEF.	Accepted
H_{8e}	Experience is positively related to OFF	Rejected
H_{9a}	Ownership is positively related to IEF	Rejected
H_{9b}	Ownership is positively related to STF	Rejected
H_{9c}	Ownership is positively related to LTF	Rejected
H_{9d}	Ownership is negatively related to EEF.	Accepted
H_{9e}	Ownership is positively related to OFF	Accepted

The above analysis answer the third research question of the present study and thereby indicates the significant variables predicting the level of financing preferences for different types of financial resources.

6.7 RESEARCH FINDINGS

This section presents the description of research findings associated with the research objectives.

6.7.1 Financing Preferences of Indian SMEs

The first research objective deals with the identification and analyses of financing preferences of Indian SMEs. This was analysed by examining every possible dimension of financing preferences. The financing preferences of SMEs were identified based on the percentage of respondents indicating their level of preference for each resource. Therefore, the first research question of the study was driven by the univariate analysis.

The results revealed that internal sources are the most preferred sources of finance that include retained earnings, personal funds and funds from group companies. However, the preference for funds from group companies is relatively low; this is because the majority of sampled firms do not have group associates.

Among the external resources, firms prefer formal sources of finance to informal sources. SMEs exhibit preference for banks financing in the form of short-term loans followed by

cash credit and bank overdraft facility. Among long-term financing sources, long-term loans, funds from governments and financial institutions are preferred by SMEs. Although, preference for funds from money lenders and family friends and relatives is relatively less as compared to other sources, trade credit is highly preferred by Indian SMEs among informal resources. The preference for external equity funds is very low among SMEs in India. Although the respondents preferred to avail public equity, funds from venture capitalists and business angels, the percentage is relatively less. This clearly indicates the underdeveloped equity market for SMEs in India.

This study also identifies and analyses the financing preferences and practices of Indian SMEs and determines whether they are similar or different. They not only express a preference for using internal sources such as owner funds and retained earnings as their primary source of financing but they also use these sources. Although Indian SMEs prefer formal STF and LTF, they often do not use these sources. They instead use trade credit, funds from family, friends, and relatives and funds from money lenders. Thus, Indian SMEs use informal financial resources more often than formal ones. Empirical evidence also shows a statistically significant difference between financing preferences and practices of Indian SMEs, especially involving formal and informal lending.

Further, the study also identifies the financing gap between availed and preferred financial resources at different stages of a firm's life cycle. It is observed that financing preferences do not match with the financing practices of SMEs across different stages of the life cycle. The majority of the firms availed owner's funds and funds from family friends and relatives and funds from money lenders as a major source of finance at the early stage. Bank financing and funds from financial institutions and government funding are highly preferred through all stages of a firm's life cycle. However, the gap is reduced for bank financing in the growth and maturity stages, but heavy dependence and preference for internal financing is observed through all stages.

6.7.2 Variation of Financing Preferences across Firm and Owner/Manager Features

Firm characteristics including legal status, business state, firm size, operating sector and export activity affect financing preferences. Private limited firms exhibit a higher preference for all types of financial resources than sole proprietorships and partnerships. Business state affects financing preferences. For example, the preference for IEF increases as a firm moves from the start-up and growth stages to the maturity and expansion stage and the preference for EEF decrease. Financing preferences for IEF, STF

and LTF increase with firm size. Respondents from export-oriented firms exhibit a greater preference for STF, OFF and EEF than non-exporters do.

Financing preferences also differ based on owner/manager characteristics. Females exhibit a high preference for EEF, whereas males show a stronger preference for IEF, LTF and OFF. The preference for IEF increases with each age group. The preference for using EEF generally increases with higher education levels. Greater business experience is associated with higher preferences for IEF, STF, LTF and OFF but a lower preference for EEF. Compared to non-owners, owners show a lesser preference for using EEF but a greater preference for using OFF.

6.7.3 Relationship between Financing Preferences and Owner/Manager Characteristics

The financing decisions of SMEs are primarily governed by owner's decision. Therefore, it becomes imperative to examine the affect of SME owner/manger's attribute on the financing preferences of SMEs. IEF is positively associated with education level and negatively associated with the experience of the respondent. Further, the results have also documented that male prefer more internal resources for financing as compared to females. It implies that highly educated respondents do not prefer internal funds. Although, highly experienced respondents prefer financing from retained earnings and from owner's funds.

Table 6.33- Summary of Step Wise Regression

This table provides summary of significant predictors for each outcome variable.

Outcome Variable	Significant Predictor(s)	Direction of Relationship
FP_{IEF}	Edu1	-
	Exp 1	+
	Male	+
FP_{STF}	Exp 1	-
	Exp 2	-
	Edu 2	-
FP_{LTF}	Male	+
FP_{OFF}	Edu 1	+
	Edu 2	+
	Ownership	+
FP_{EEF}	Male	-
	Ownership	-
	Exp 2	+

STF is positively related with education and experience. It indicates that highly educated and experienced respondents prefer short term financial resources for fulfilling the

financial needs of their firms. The positive relationship between LTF and males indicates higher preference for long term financial resources among male owners as compared to female owners. OFF is positively related to ownership and negatively with the education level of respondents. This implies that owners prefer OFF more than non owners and post graduates prefer less OFF when compared with graduates. EEF is negatively related with gender and ownership status of the respondents. It implies that female respondents prefer more equity from outside as compared to male respondents. On the other hand, owners prefer less external equity as compared to non owners. Further, negative relationship between experience and EEF indicates that respondents having working experience of less than 10 years prefer more external funds as compared to those having experience of more than 10 years

6.8 CONCLUSION

This chapter reports the results of primary data collected through a structured questionnaire. This basically describes the research findings of the first three objectives of the study. The extensive examination of financing preferences through various dimensions helps in developing an in-depth understanding towards the financing behaviour of SMEs. The research findings basically illustrate the state of SME financing in India. The chapter elucidates the financing preferences and practices of Indian SMEs and also establishes the relationship between respondents' attributes and various financing preferences.

CHAPTER – 7

DETERMINANTS OF CAPITAL STRUCTURE OF SMEs

CHAPTER 7

DETERMINANTS OF CAPITAL STRUCTURE OF SMES

Preface

This chapter illustrates the important determinants of capital structure decisions of SMEs. It also establishes the direction of the relationship between firm-specific variables and leverage ratios. The chapter begins with the introduction of the final objective of this study. It then presents the findings of primary data pertaining to the determinants of capital structures. It also correlates the survey responses with the empirical findings of the secondary data extracted from PROWESS. The next section begins with the descriptive statistics of the dependent and independent variables used in this study. The subsequent section examines the stationarity of the data and issues pertaining to the multi-collinearity of data. This is followed by a discussion on the results pertaining to manufacturing and service SMEs. Also discussed is the applicability of capital structure theory in the context of Indian SMEs. Finally, this chapter provides the major research findings followed by the conclusion.

7.1 INTRODUCTION

This chapter presents the analysis pertaining to the fourth and final research objective of this study. It explains the importance and the relationship of the determinants of capital structure decisions of manufacturing and service SMEs in India. On the grounds of theoretical underpinnings documented by capital structure theories, this study makes an attempt to determine the applicability of capital structure theory to SMEs in the Indian context. The research objective was accomplished with the help of primary data collected from the survey of SMEs and secondary data extracted from the Prowess database of CMIE.

The final section of the questionnaire consists of questions pertaining to the determinants of capital structure decisions of SMEs. It gives the analysis of the factors driving the capital structure decisions of SMEs in India**.** The importance of these factors was studied through the primary data, and respondents were asked to indicate their opinion on the importance of firm-specific variables and macroeconomic variables in making financing decisions of SMEs. This is followed by a set of statements that explain the relationship of leverage with firm-specific variables. The respondents were asked to give their opinion on the basis of their agreeableness for

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the statement. The predicted relationship is then compared with the results obtained from the secondary data analysis.

The analysis based on the secondary data has helped in examining the relationship between firm-specific variable and leverage ratios. The analysis was done in this way because financial information of Indian SMEs was neither available nor accessible through primary data. Further, capital structure determinants have a great influence on the financing preference of firms. Therefore, the relationship was studied through the data collected from the secondary source.

The current study applied the dynamic panel data regression method to test hypotheses. According to Shahimi *et al.* (2006), this technique is reliable for studying a sample of cross-sectional time series data. The empirical analysis of this thesis focuses on the contemporary relationship between leverage ratios and firm-specific variables. This was done to investigate the prime factors responsible for driving capital structure decisions of SMEs. A prudent examination of the literature also revealed the necessity for investigating the capital structure determinants of SMEs in India.

This study independently examines the importance and the relationship of capital structure determinants of manufacturing and service SMEs.

7.2 FACTORS INFLUENCING FINANCING DECISIONS

The prime factors influencing the financing decisions of SMEs in India were identified with the help of the primary survey. These factors were divided into two parts: firm-specific variables and macroeconomic variables. Empirical studies have well established the influence of firm-specific variables in explaining the capital structure decision of firms. This is basically because all the capital structure theories were developed in the light of the variables directly associated with leverage decisions. Firm-specific variables include age, profitability, liquidity, tangibility, growth, non-debt tax shield, operating cash flow, interest-expense and industry trends. Further, Rajan and Zingales (1995) studied the capital structure decisions of G7 countries and found that the effect of internal factors is similar across countries. De Jong *et al.* (2008) however extended this study and did not find a similar relationship across countries. This is probably because of the influence of country-specific variables affecting the financing decisions of firms. Therefore, this study also includes the influence of country-specific variables in identifying financing preferences of firms. Macroeconomic variables include interest rate, investment rate, economy

growth, inflation, government schemes, tax rate, exchange rate and access to technology.

Table 7.1 presents the significance of firm-specific factors affecting the financing decisions of SMEs. This has been examined on a five point importance scale where 1= not at all important, 2= unimportant, 3= neither important nor unimportant, 4= important and 5= very important. Deesomak *et al.* (2004) asserted that most of the empirical studies have primarily focused on firm-specific variables. This may be due to their dynamic and volatile nature. It makes them relatively better explanatory of capital structure decisions of firms (Daskalakis and Psillaki, 2008; Kayo and Kimura, 2011). Therefore, this study first assesses the importance of firm-specific variables and then examines the relationship of these variables with leverage.

Table 7.1 Importance of Firm Specific Factors

This table presents the percentage of responding Indian SMEs expressing importance for different firm specific variables where 1 = not at all important, 2 = unimportant, 3 = neither important nor unimportant, 4 = important, and 5 = highly important.

Variables	Importance Scale					Mean	Median	Rank
	1 %	2 %	3 %	4 %	5 %			
Age	3.2	31.7	19.7	43.7	1.6	3.1	3	6
Profitability	0.0	0.6	8.4	51.5	39.5	4.3	4	1
Liquidity	0.6	5.2	13.3	61.2	19.7	4.0	4	4
Asset Structure	1.9	4.5	9.4	40.5	43.7	4.2	4	2
Firm's Growth	0.6	2.6	10.4	58.3	28.2	4.1	4	3
Non Debt Tax Shield	4.5	28.5	34.0	25.9	7.1	3.0	3	7
Operating Cash Flow	1.3	3.2	11.0	63.4	21.0	4.0	4	4
Interest Expense	2.9	12.3	35.0	45.3	4.5	3.4	3	5
Industry Trend	16.5	57.3	12.6	11.0	2.6	2.3	2	8

Respondents were asked to rate the importance of factors. Profitability is the most important variable in the financing decision of firms. 91% of the respondents have considered it as an important/highly important factor in making financing decisions of firms. Of the respondents, 43.7% indicated asset structure as the second most highly important variable followed by growth (28%), operating cash flow (21%) and liquidity (19.7%). The respondents also considered other variables such as interest expense, age and non-debt tax shield to be important. However, the majority of respondents did not rate industry trend as an important factor in firm financing decisions.

According to Booth *et al.* (2001), macroeconomic factors, such as inflation, interest rate, economic growth, financial market development, also influence the capital structure decisions in developed and emerging economies. Further, De Jong *et al.* (2008) reported that macroeconomic variables influence the financing decisions of firms both directly and indirectly. This is because macroeconomic variables indirectly cause change in firm-specific factors which are supposed to influence capital structure decisions directly. However, as far as SMEs are concerned, the indirect influence of macroeconomic variables is more prominent as compared to the direct influence of these variables on the financing decisions of SMEs. This may be because of the relatively lower financial requirements of SMEs as compared to those of large firms. However, internal factors also absorb external changes and thereby showcase their effect indirectly. Hence, this study describes the influence of macroeconomic variables on the financing decisions of SMEs by highlighting their relative importance for SMEs owners.

Table 7.2 exhibits the importance of macroeconomic variables in the financing decisions of SMEs. Although the respondents indicated relatively lower importance to the macroeconomic factors as compared to firm-specific variables, the importance of these variables cannot be overlooked while analysing factors affecting the financing decisions of firms. Most of the respondents, (80.6% and 76.3%) considered tax rate and interest rate as the most important/highly important macroeconomic factors. Government policies related to rebates and loan subsidies and the financing schemes implemented by government authorities were considered as the next important/highly important factor by 63.1% respondents. Other variables like inflation were considered neither important nor unimportant by 37.5 % respondents. Exchange rate is significant only for export-oriented firms and 50.2% considered it as an important/highly important factor in the financing decisions of SMEs. Further, 25.9% respondents considered access to technology as an important variable, whereas 34.6% marked it as not at all important for financing decisions. Investment rate was indicated to be the least important factor, and 62.8% respondents considered it as an unimportant/ not at all important variable.

Table 7.2 Importance of Macro-Economic Factors

This table presents the percentage of responding Indian SMEs expressing importance for different macroeconomic variables where 1 = not at all important, 2 = unimportant, 3 = neither important nor unimportant, 4 = important, and 5 = highly important.

Variables	Importance Scale					Mean	Median	Rank
	1 %	2 %	3 %	4 %	5 %			
Interest Rate	1.9	6.8	14.9	63.4	12.9	3.79	4	2
Investment	36.6	26.2	24.3	10.4	2.6	2.16	2	8
Economy Growth	4.2	30.1	29.4	33.7	2.6	3	3	6
Inflation	4.5	19.7	37.5	35.6	2.6	3.12	3	4
Govt. Policies	1.9	12.9	22.0	52.4	10.7	3.57	4	3
Tax Rate	1.3	7.4	10.7	69.6	11	3.82	4	1
Exchange Rate	27.8	11.7	10.4	25.6	24.6	3.07	4	5
Access to Technology	34.6	13.6	19.1	25.9	6.8	2.57	3	7

The present study seeks to identify the significant difference for the importance of firm specific and macroeconomic factors across the size (micro, small and medium) of SMEs in India. It exclusively determines the difference in the importance of a specific factor (micro and macro) for micro, small and medium enterprises in India. Further, the above variables have not fulfilled the assumptions of parametric tests. Though these are also measured on Likert-scale, but these are not normally distributed and do not have equal variance across the size of the SMEs. Therefore, a corresponding non parametric (Kruskal-Wallis) test has been applied to test the existence of significant difference across the firm size with regard to the importance of firm specific and macroeconomic variables in the financing decisions of firms. It has been evident from table 7.3 that profitability, age, operating cash flow, interest expense and industry trends are not statistically significant across the firm size. Further, by observing table 7.1 it is also proved that profitability has been considered as highly important factor by the SMEs in taking financing decisions. It implies that profitability is equally important for micro, small and medium enterprises in India. Similarly the importance for other non significant factors (age, operating cash flow, interest and industry trends) will also remain same across size of the Indian SMEs. The variables that are statistically significant across the firm size are growth, liquidity, asset structure and non debt tax shield.

Table 7.3 Importance of Firm specific and Macroeconomic Variables across Firm Size

This table shows the statistical difference in the importance of firm specific and macroeconomic variables across the size of Indian SMEs

Nature of Variables	Variables	χ^2 Stats	Degree of Freedom	p value
Firm Specific	Age	0.306	2	*0.858*
	Profitability	5.482	2	*0.065*
	Liquidity	10.862	2	*0.004**
	Asset Structure	6.395	2	*0.041***
	Firm's Growth	27.273	2	*0.000**
	Non Debt Tax Shield	46.467	2	*0.000**
	Operating Cash Flow	0.383	2	*0.826*
	Interest Expense	1.355	2	*0.508*
	Industry Trend	5.700	2	*0.058*
Country Specific	Interest Rate	29.167	2	*0.000**
	Investment	6.922	2	*0.031***
	Economy Growth	11.735	2	*0.003**
	Inflation	4.395	2	*0.111*
	Govt. Policies	4.657	2	*0.097*
	Tax Rate	4.774	2	*0.092*
	Exchange Rate	21.100	2	*0.000**
	Access to Technology	23.085	2	*0.000**

*,** indicates statistical significance at the 0.01 and 0.05 level, respectively.

Among country specific variables, tax rate, government schemes and inflation have been documented as non significant across firm size. It also implies that importance of these factors remain same across the firm size. Further, interest rate, investment rate, economy growth, exchange rate and access to technology have found to be statistically different across the firm size.

Therefore, the following hypotheses are accepted only for the non-significant firm (profitability, age, interest rate and industry trend) and country (inflation, tax rate and government policies) specific variables while importance for the rest of the variables vary across firm size.

H_{10a}: Firm-specific variables (Profitability, age, interest expenses and industry) are equally important in making financing decisions for micro, small and medium enterprises.

H$_{10b}$: Macroeconomic variables (inflation, tax rate and government policy) are equally important in making financing decisions for micro small and medium enterprises.

The overall picture of factors influencing the financing decisions of SMEs indicates a comparatively higher significance of firm-specific variables.

7.2.1 Relationship of Firm-Specific Variables with Firm's Leverage

Further, the next question of the research statement evaluates the relationship of firm-specific variables with leverage. This was done by asking respondents to indicate their opinion on the statements related to the relationship between selected explanatory variables with a firm's capital structure. The relationship of each firm-specific variable was analysed with the help of two statements. The statements indicate a positive and negative relationship of variables with leverage. Based on the responses received, this study hypothesized the direction of the relationship between firm-specific variables and leverage.

The overall findings indicate a median of 4 for most of the variables except non-debt tax shield and growth. The respondents supported the fact that profitability is negatively related to leverage. Most of the respondents (~50%) agreed that firms require funds when their internal resources are exhausted. Size was found to be positively associated with leverage. Unequivocally, 94% respondents agreed that size is positively related to leverage because lending institutions generally discriminate between small and large firms. Moreover, large firms also enjoy good reputation with financiers as compared to small firms. Another, highly important factor associated with leverage is asset structure or tangibility. This is also found to be positively associated with leverage. Ninety-four percent of the respondents supported the fact that collateral helps in reducing the lending barriers faced by firms and thereby making the accessibility of financial resource convenient.

For growth, most of the respondents (~40.7%) are not sure about the relationship between accessibility of funds and the growth prospects available for firms. However, the mean (3.36) and median (3) values of S7 and S8 statements indicate a positive relationship. However, the possibility of negative association cannot be overlooked in this case.

Table No. 7.4- Respondents Opinion regarding the Relationship between Leverage and Firm Specific Variables

This table presents the percentage of responding Indian SMEs expressing their opinion for the relationship between leverage and firm specific variables where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree.

Variables	S.No.	Statements	Opinion Scale					Mean	Median	Hypothesized Sign
			1 %	2 %	3 %	4 %	5 %			
Profitability	*S1*	Profitable firms having large internal funds , thus are less willing to use external funds	7.1	34.6	7.1	48.2	2.9	3.05	4	-
	S2	Less profitable firms having an investment opportunity will be more willing to use external funds	1.3	28.5	6.5	52.4	11.3	3.44	4	
Size	*S3*	Smaller by Firms are more discriminated by banks or financial institutions when applying for external debt finance	0.0	1.3	4.5	77.7	16.5	4.09	4	+
	S4	Large firms have good reputation	0.6	1.9	3.2	40.1	54.0	4.45	5	
Tangibility	*S5*	Firms with high level of fixed assets pledging collateral to secure debt finance	0.6	0.6	6.5	49.2	43.0	4.33	4	+
	S6	Firms with more assets and collaterals available face fewer obstacles in receiving debt	0.0	0.6	16.8	40.1	42.4	4.24	4	
Growth	*S7*	Firms with greater growth opportunities have more access to bank funds	0.0	14.6	40.5	39.2	5.8	3.36	3	+

Variables	S.No.	Statements	Opinion Scale					Mean	Median	Hypothesized Sign
			1 %	2 %	3 %	4 %	5 %			
	S8	High growing firms do not have sufficient retained earnings to finance their investments	1.0	22.7	43.7	29.4	3.2	3.11	3	
Age	*S9*	Older firms have high creditworthiness to creditors	0.0	7.1	7.8	42.7	42.4	4.2	4	+
	S10	Older and more experienced firms require less external financing due to high capital reserves	17.8	55.0	17.2	8.7	1.3	2.21	2	
Liquidity	*S11*	Firms with greater liquidity may use their liquidity to finance their investments	0.6	36.2	22.3	40.1	0.6	3.04	3	-
	S12	A higher liquidity indicates a greater firm's ability to meet short term obligations	0.0	7.4	4.2	76.7	11.7	3.93	4	
Non Debt Tax Shield	*S13*	Tax deductions for depreciation expenses can be used as substitutes for the tax benefits of debt financing	0.6	25.2	28.5	45.6	0.0	3.19	3	-
	S14	The tax advantage of debt decrease when other tax deduction increases	1.3	12.6	54.0	30.7	1.3	3.18	3	

This is because it is unlikely in the case of profitability, size and tangibility; further, most of the participants do not support the fact that growth opportunities lead to higher procurement of debt. Therefore, the study documents mixed evidence regarding the relationship of growth with leverage.

Age is positively related to debt and majority of the participants (>50%) attested the fact that creditworthiness of older firms is higher and the requirement of external funds does not get suppressed with the availability of internal resources.

Of the participants, 88.4% indicated that liquidity is negatively related to leverage. This is because firms use their liquidity in meeting short-term obligations. However, some respondents (44.1%) also agreed that firms might use their liquidity to fund long-term investments.

Finally, the relationship of non-debt tax shield was found to be negatively associated with long-term debt. Nevertheless, it was supported by fewer respondents. However, 54% of the respondents were not sure about the benefits of non-debt tax shield and 25.2% of the respondents did not support non-debt tax shield as an alternative for debt financing.

Therefore, the primary survey assisted in establishing a relationship between firm-specific variables and leverage in accordance with the opinion of respondents. However, the descriptive statistics of responses associated with the relationship between firm-specific variables and leverage primarily indicates the applicability of POT in making financing decisions of SMEs. These findings are however not supported by any statistical tests. To further validate the aforementioned results, secondary data were extracted from the Prowess. The data pertaining to all the firm-specific variables and leverage ratio of firms were obtained from the Prowess. Panel data regression was applied to examine the relationship between firm-specific variables and leverage ratios. The procedure of sample selection has already been explained in chapter 4. The next section illustrates the empirical testing of the secondary data on firm-specific variables and debt ratio.

7.3 PANEL DATA REGRESSION

The effectiveness of dynamic panel data models in capital structure decisions has been asserted by several studies (Gaud *et al.,* 2005; Lopez-Gracia and Sogorb-Mira, 2008; Chakraborty, 2010; Forte *et al.*, 2013). It addresses the possibility that firms might set an optimal target debt ratio and adjust their actual leverage ratio towards it. Moreover, this was also done to capture the effect of lagged dependent variables in

capital structure decisions. Statistical tests also reveal the importance of including one or more lags of dependent variables along with other explanatory variables. Further, the use of dynamic estimators reduces the firm's unobservable individual effects. It also controls for endogeneity and control for collinearity between predictor variables. Arellano and Bond (1991) reported the inclusion of lagged leverage variables and their determinants as instruments. It creates orthogonal conditions between the error term and lagged leverage and thus eliminates the issue of autocorrelation. However, when the dependent variable is persistent, there is a probability of high correlation between leverage and its lagged variable. Therefore, the GMM estimator has been extended by Blundell and Bond (1998). It allows independent variables as instruments and lagged variables in first difference. However, it is considered applicable only under two situations: firstly, the instruments should be valid and secondly, there is no second-order correlation. For assessing the validity of instruments, Hansen test was applied in the study. The study also examined the first- and second-order correlations for each model.

7.3.1 Tests for Stationarity

The examination methods of stationarity in a time series and cross-sectional data are closely related to the test for unit roots. Existence of unit roots in a series denotes non-stationarity. The idea behind the use of a panel unit root test is valid for combining the information from time series with the information from cross-sectional units. The addition of cross-sectional variations to time series variation improves estimation efficiency, and leads to smaller standard errors and consequently to higher t-ratios. Therefore, it is essential to examine the stationarity of the variables under examination. The analysis begins with the unit root test for checking the stationarity of data before estimating the models with dynamic panel data estimation methods, namely, generalized method of moments. There are various panel unit root tests. The tests proposed by Levin, Lin and Chu (LLC) (2002), Im, Pesaran and Shin (IPS) (2003) and two sets of Fisher type tests using ADF and Phillips–Perron (PP) as proposed by Maddala and Wu (1999) and Choi (2001) are performed to test the unit root. LLC assumed that the presence of unit roots across cross-sections. IPS and Fisher type tests omit this assumption. Thus, for the latter tests, the unit root is assumed to vary across cross-sections.

Table 7.5 Panel Unit Root Test of the Variables at level (for Manufacturing SMEs)

This table presents the unit root test for the dependent and independent variables used in this study.

Tests	LEV1	LEV2	LEV3	TANG	PROF	OCF	NDTS	SIZE	LIQ	GR	AGE
LLC (with individual intercept)											
Statistics	-19.386	-21.602	-16.816	-24.199	-37.402	-46.425	-48.758	-21.918	-43.772	-31.449	-58.222
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**
IPS (with individual intercept)											
Statistics	-5.368	-5.592	-4.589	-6.257	-13.029	-8.643	-9.368	-4.044	-8.712	-15.644	-280.501
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**
Fisher ADF (with individual intercept)											
Statistics	592.003	587.859	570.735	622.268	846.672	653.319	639.974	577.332	644.021	1007.340	2685.850
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**
Fisher PP (with individual intercept)											
Statistics	587.806	645.797	554.076	680.801	957.980	810.337	681.305	669.379	696.638	1310.060	2428.420
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**

Leverage 1 (lev1) is long term debt by total assets; leverage 2 (lev2) is short term debt /total assets and leverage 3 (lev3) is total debt/total assets. Tangibility (tang) is fixed asset divided by total assets; Profitability (Prof) is Profit before depreciation, interest and tax by total assets; Operating Cash flow (OCF) is profit after tax +depreciation scaled by total assets; Non-Debt Tax shield (NDTS) is Depreciation divided by total assets; Size is log of total assets; Liquidity (LIQ) is current assets by current liabilities; Growth (GR) percentage change in sales; Age is log of number of years from the year of incorporation. * indicates the corresponding value for each test is significant at 0.01 significance level.

Table 7.6- Panel Unit Root Test of the Variables at level (for Service SMEs)

This table presents the unit root test for the dependent and independent variables used in this study.

Tests	LEV1	LEV2	LEV3	TANG	PROF	OCF	NDTS	SIZE	LIQ	GR	AGE
LLC (with individual intercept)											
Statistics	-42.561	-68.241	-39.496	-46.748	-104.470	-48.902	-58.986	-54.476	-27.372	-46.724	-80.752
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**
IPS (with individual intercept)											
Statistics	-8.886	-14.032	-8.413	-12.153	-16.772	-11.938	-13.138	-12.851	-7.289	-19.707	464.096
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**
Fisher ADF (with individual intercept)											
Statistics	1095.220	1245.580	1114.440	1288.80	1325.590	1276.54	1233.09	1285.77	1116.67	1725.42	-5806.95
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**
Fisher PP (with individual intercept)											
Statistics	1124.60	1260.740	1200.880	1449.19	1345.78	1489.37	1459.60	1646.46	1245.27	2017.20	5712.82
p value	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**	*0.00**

*Leverage 1 (lev1) is long term debt by total assets; leverage 2 (lev2) is short term debt /total assets and leverage 3 (lev3) is total debt/total assets. Tangibility (tang) is fixed asset divided by total assets; Profitability (Prof) is Profit before depreciation, interest and tax by total assets; Operating Cash flow (OCF) is profit after tax +depreciation scaled by total assets; Non-Debt Tax shield (NDTS) is Depreciation divided by total assets; Size is log of total assets; Liquidity (LIQ) is current assets by current liabilities; Growth (GR) percentage change in sales; Age is log of number of years from the year of incorporation. * indicates the corresponding value for each test is significant at 0.01 significance level.*

Tables 7.5 and 7.6 indicate the unit root test at level for all the variables of manufacturing and service SMEs respectively. It is evident that all the tests unanimously reject the null hypotheses of unit roots of the variables at level only. Therefore, it can be concluded that the data are stationary and there is no need to do the co-integration test.

7.3.2 Descriptive Statistics

This chapter investigates the relationship between leverage ratios and firm-specific variables. The criterion variables are three types of leverage ratios, namely, short-term debt, long-term debt and total debt. Predictor variables comprise profitability, tangibility, age, size, growth, liquidity, operating cash flow and non-debt tax shield. Tables 7.7 and 7.8 present mean, median, maximum, minimum and the standard deviation for the variables examined in the study for manufacturing and service SMEs, respectively. The descriptive statistics of manufacturing firms (see table 7.7) reveals the dominance of short-term debt. It is indicated by the mean and median of STD (0.3203 & 0.2983) and LTD (0.1171 & 0.0763). It also supports the fact that SMEs mainly depend on STD for their financial requirements (Abor and Biekre, 2006; Odit and Gobardhun, 2011). Further, the maximum and minimum values of STD are 0.9617 and 0.0004 and for LTD these values are 0.8609 and 0.003. The low mean value of prof (0.1068) and ocf (0.0575) of manufacturing SMEs depicts the possible reason for low LTD. This is because lenders access the financial performance of firms while sanctioning long-term loans and the low values of operating profit and cash flows indicate the credit constraint faced by these firms. Further, the mean value of tang is 0.2272. This indicates the value of fixed assets employed in the firm. The mean (0.0205) and median (0.0149) values of NDTS also indicate the low probability of applying it as a substitute for debt. The mean value of liquidity is 2.74, which indicates relatively more current assets as compared to current liabilities. The mean (0.1405) and the median (0.0957) also indicate a moderate growth rate. The mean and median values for size and age are reported in terms of the natural log of the total assets and year of incorporation.

Table 7.7 –Descriptive Statistics for Manufacturing SMEs

This table outlines the descriptive statistics of manufacturing SMEs in India. It presents mean, median, maximum, minimum and standard deviations for 1692 observations of 188 firms

	Lev1	Lev2	Lev3	TANG	PROF	OCF	NDTS	SIZE	LIQ	GR	AGE
Mean	0.117	0.320	0.437	0.222	0.107	0.058	0.021	5.643	2.744	0.141	2.550
Median	0.076	0.298	0.453	0.174	0.093	0.041	0.015	5.423	1.470	0.096	2.833
Maximum	0.861	0.962	0.992	0.806	0.792	0.816	0.147	10.717	86.540	1.991	4.673
Minimum	0.000	0.000	0.006	0.001	-0.360	-0.694	0.000	2.351	0.070	-1.000	0.000
Std. Dev.	0.122	0.218	0.226	0.187	0.091	0.101	0.021	1.330	5.540	0.357	1.201
Observations	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692	1692

Table 7.8 –Descriptive Statistics for Service SMEs

This table outlines the descriptive statistics of services SMEs in India. It presents mean, median, maximum, minimum and standard deviations for 3141 observations of 349 firms

	LEV1	LEV2	LEV3	TANG	PROF	OCF	NDTS	SIZE	LIQ	GR	AGE
Mean	0.123	0.225	0..349	0.275	0.125	0.066	0.028	6.529	2.060	0.145	3.053
Median	0.073	0.163	0.317	0.190	0.110	0.058	0.020	6.421	1.360	0.125	2.996
Maximum	0.889	0.922	0.0.996	0.952	0.862	0.861	0.653	12.628	30.840	1.911	4.691
Minimum	0.000	0.001	0.002	0.000	-0.596	-1.610	0.000	1.649	0.010	-0.996	0.693
Std. Dev.	0.135	0.203	0.222	0.242	0.242	0.095	0.028	1.637	2.578	0.317	0.593
Observations	3141	3141	3141	3141	3141	3141	3141	3141	3141	3141	3141

Leverage 1 (lev1) is long term debt by total assets; leverage 2 (lev2) is short term debt /total assets and leverage 3 (lev3) is total debt/total assets. Tangibility (tang) is fixed asset divided by total assets; Profitability (Prof) is Profit before depreciation ,interest and tax by total assets; Operating Cash flow(OCF) is profit after tax +depreciation scaled by total assets; Non-Debt Tax shield(NDTS) is Depreciation divided by total assets; Size is log of total assets; Liquidity (LIQ) is current assets by current liabilities; Growth (GR) percentage change in sales; Age is log of number of years from the year of incorporation;

Progressing towards the descriptive statistics of service SMEs (table 7.8), it is revealed that the mean and median values of service SMEs are high for STD (0.2252 and 0.1625) as compared to those for LTD (0.1233 and 0.0727). The mean of the total debt of manufacturing SMEs (0.4373) is more than that of service SMEs (0.3486). However, the average profitability of service SMEs (0.1253) is higher as compared to that of manufacturing SMEs (0.1068). Serrasquiero (2011) also asserted that the high profitability of service SMEs is the reason behind the low use of external funds by service SMEs. The mean and median values of tang are 0.2752 and 0.1896, respectively. The average growth rate of service SMEs is 0.1453, which is slightly higher than that of manufacturing SMEs. However, the average current ratio is 2.0603, which is comparatively lesser than that of manufacturing SMEs.

The above text showcases the evident difference between variables of manufacturing and service SMEs of India.

7.3.3 Correlation and Multi-Collinearity

Tables 7.9 and 7.10 present the correlation analysis of criterion and predictor variables for manufacturing and service SMEs in India. The dependent variables Lev1, 2 and 3 are related to each other. Lev 1 and 2 are negatively correlated with each other, whereas Lev 3 is positively correlated with Lev 1 and 2. The association between criterion variable is similar for manufacturing and service SMEs. For manufacturing SMEs (table 7.9), Lev 1 depicts a positive correlation with prof (0.0280), ocf (0.0509), ndts (0.1559), size (0.0761) and gr(0.0604) and a negative correlation between tang (-0.2480), liq (0.1283) and age (-0.1153). Lev 2 and 3 exhibit a similar correlation with predictor variables (except for tang and age). A negative correlation was found with prof, ocf, ndts and liq and a positive correlation was present for size and gr. However, contrasting associations are found for age and tang. Lev 2 is positively correlated with age and negatively correlated with tang, whereas Lev 3 is positively correlated with age and negatively correlated with tang.

Similarly, table 7.10 presents the correlation analysis for SMEs operating in the service sector in India. This also indicates the relationship between dependent variables, but the extent is less prominent as compared to manufacturing SMEs. The results are almost comparable with manufacturing SMEs.

Table 7.9 Correlation Analysis of Manufacturing SMEs

This table presents the measures of association between dependent and independent variables. It also measures the variance inflation factor (VIF) and Tolerance Value (TV) for independent variables.

	LEV1	LEV2	LEV3	TANG	PROF	OCF	NDTS	SIZE	LIQ	GR	AGE	VIF	TV
Lev1	1.000												
Lev2	-0.215	1.000											
Lev3	0.334	0.849	1.000										
TANG	-0.248	0.073	-0.064	1.000								1.036	0.965
PROF	0.028	-0.130	-0.110	0.021	1.000							1.193	0.837
OCF	0.051	-0.103	-0.072	0.014	0.376	1.000						1.194	0.837
NDTS	0.156	-0.095	-0.007	-0.119	0.156	0.156	1.000					1.223	0.818
SIZE	0.076	0.073	0.111	0.016	-0.037	-0.073	-0.363	1.000				1.160	0.863
LIQ	-0.128	-0.319	-0.378	0.146	0.046	0.007	-0.081	0.021	1.000			1.035	0.966
GR	0.060	0.060	0.091	-0.004	0.136	0.153	0.015	-0.012	-0.066	1.000		1.039	0.962
AGE	-0.115	0.007	-0.056	0.026	-0.004	-0.032	-0.110	0.009	0.006	-0.046	1.000	1.019	0.981

Leverage 1 (lev1) is long term debt by total assets; leverage 2 (lev2) is short term debt /total assets and leverage 3 (lev3) is total debt/total assets. Tangibility (tang) is fixed asset divided by total assets; Profitability (Prof) is Profit before depreciation, interest and tax by total assets; Operating Cash flow (OCF) is profit after tax +depreciation scaled by total assets; Non-Debt Tax shield (NDTS) is Depreciation divided by total assets; Size is log of total assets; Liquidity (LIQ) is current assets by current liabilities; Growth (GR) percentage change in sales; Age is log of number of years from the year of incorporation..

Table 7.10 Correlation Analysis of Service SMEs

This table presents the measures of association between dependent and independent variables. It also measures the Variance Inflation Factor (VIF) and Tolerance Values (TV) for independent variables.

	LEV1	LEV2	LEV3	TANG	PROF	OCF	NDTS	SIZE	LIQ	GR	AGE	VIF	TV
Lev1	1.000												
Lev2	-0.179	1.000											
Lev3	0.443	0.803	1.000										
TANG	0.131	-0.245	-0.144	1.000								1.331	0.751
PROF	0.067	-0.117	-0.066	-0.037	1.000							2.391	0.418
OCF	0.003	-0.161	-0.145	0.067	0.755	1.000						2.391	0.417
NDTS	0.118	-0.160	-0.074	0.078	0.214	0.215	1.000					1.402	0.713
SIZE	0.150	0.008	0.098	-0.037	-0.025	-0.027	-0.074	1.000				1.012	0.988
LIQ	-0.085	-0.279	-0.306	-0.205	-0.018	0.065	-0.089	-0.056	1.000			1.068	0.936
GR	-0.036	0.089	0.059	0.013	0.251	0.241	0.011	0.018	-0.032	1.000		1.111	0.899
AGE	-0.076	0.025	-0.023	-0.101	-0.086	-0.080	-0.213	0.051	0.018	-0.170	1.000	1.081	0.925

Leverage 1 (lev1) is long term debt by total assets; leverage 2 (lev2) is short term debt /total assets and leverage 3 (lev3) is total debt/total assets. Tangibility (tang) is fixed asset divided by total assets; Profitability (Prof) is Profit before depreciation, interest and tax by total assets; Operating Cash flow (OCF) is profit after tax +depreciation scaled by total assets; Non-Debt Tax shield (NDTS) is Depreciation divided by total assets; Size is log of total assets; Liquidity (LIQ) is current assets by current liabilities; Growth (GR) percentage change in sales; Age is log of number of years from the year of incorporation..

However, Lev1 depicts a positive correlation with tang (0.1313) and a negative correlation with gr (-0.0362). Further, a negative correlation is reported between tang and Lev2 and 3.

The main concern with multivariate analysis is the problem of multi-collinearity. Tables 7.9 and 7.10 show that there is low to moderate correlation between predictor variables of manufacturing and service SMEs. Therefore, the probability of multi-collinearity is almost negligible .Further, no correlation value exceeds beyond 0.80, and hence, it may be concluded that there is no significant level of multi-collinearity among independent variables that may affect the outcome. However, the absence of high correlation does not ensure lack of collinearity. This may occur as the combined effect of two or more independent variables. An alternative method of evaluating the independence is to compute the tolerance value and variance inflation factor (VIF).

According to Hair *et al.* (2007), tolerance value is defined as the amount of an independent variable's predictability that has not been explained by other independent variables. Tolerance of a variable was calculated as $1-R^2$. In this case, the variable whose tolerance is calculated is considered as a dependent variable and all other variables are defined as independent variables (Miles and Shevlin, 2005). Tolerance value lies between 0 and 1.A 0 tolerance value means that the variable is completely predicted by other variables and that there is existence of perfect collinearity between variables. On the contrary, a tolerance value of 1 indicates that there is no correlation. In other words, a high tolerance value indicates the absence of multi-collinearity between variables.

VIF is the inverse of tolerance value. This is important because it explains the amount of standard error that has increased due to multi-collinearity (Miles and Shevlin, 2005).Tables 7.9 and 7.10 presenting the correlation analysis indicate that the value of tolerance and VIF corresponding to each explanatory variable is closer to 1 and <10, respectively. Therefore, there is no statistical evidence regarding the issue of existence of multi-collinearity among independent variables.

7.3.4 Empirical Findings of GMM

This section elucidates the results obtained from GMM for manufacturing and service SMEs of India. This study examined the relationship between firm-specific variables and leverage ratios for SMEs. The dependent variables are Lev1, Lev2 and Lev3. These variables present the leverage ratios in the form of LTD, STD and TD. The independent variables are tang, prof, ocf, ndts, size, liq, gr and age. The detailed description of the measurement of all variables is provided in chapter 4. Further, the relationships were

compared with the hypothesis developed on the basis of the literature review. The empirical results obtained from the secondary data also matched with the opinion of the respondents gathered from the primary survey. Thereby, the study finalizes the direction of the relationship between firm-specific variables and debt ratios of Indian SMEs.

7.3.4.1 Empirical Results for Manufacturing SMEs

The literature has documented the high usage of short-term debt by SMEs. Therefore, the dependent variable was studied in three different forms, namely, LTD,STD and TD. Based on the dependent variables, three models were developed as per GMM specifications. The brief outline of the models is as follows:

Model 1- For Long-Term Debt

$Lev_{1m}= \alpha_0 + f(Lev_{it-1}, Tang_{it}, Prof_{it}, OCF_{it}, Ndts_{it}, Size_{it}, Liq_{it}, GR_{it}, Age_{it}) + n_i + n_t + \varepsilon_{it} \ldots..eq\ 7.1$

Model 2- For Short-Term Debt
$Lev_{2m} = \alpha_0 + f(Lev_{it-1}, Tang_{it}, Prof_{it}, OCF_{it}, Ndts_{it}, Size_{it}, Liq_{it}, GR_{it}, Age_{it}) + n_i + n_t + \varepsilon_{it} \ldots...eq\ 7.2$

Model 3-For Total Debt
$Lev_{3m} = \alpha_0 + f(Lev_{it-1}, Tang_{it}, Prof_{it}, OCF_{it}, Ndts_{it}, Size_{it}, Liq_{it}, GR_{it}, Age_{it}) + n_i + n_t + \varepsilon_{it} \ldots...eq7.3$

Tangibility (Tang)-Empirical evidence revealed that tang is positively related to STD, LTD and TD. The issue of information asymmetry and agency cost is very high in small firms. Asset substitution effect makes lenders and financiers susceptible in lending to SMEs. Further, collateral serves as a substitute in the mitigation of information asymmetry and thereby smoothens the lending difficulties of SMEs. Therefore, SMEs with a high level of fixed assets are easily able to secure debt as compared to firms having less fixed assets. The results are in concordance with those of Jordan *et al.* (1988) and Michaleas *et al.* (1999). However, empirical evidence mainly supports the negative relationship of tang with STD and positive relationship with LTD and TD. On the contrary, this reports a positive relationship with STD. The other probable reason may be dependence of SMEs is more on STD mainly in the form of cash credit, overdraft and working capital loans. Further, the SMEs engaged in exports also opt for export-import finance facility. Therefore, lenders may require collateral to secure their money against any kinds of default. Further, the relationship with other gearing ratios has been well supported in the literature (Michaelas *et al.*, 1999; Hall *et al.*, 2000; Hall *et al.*, 2004; Sogorb-Mira, 2005; Odit and Gobardhan, 2011; Zhang, 2010).

Moreover, the opinion of participants gathered from the primary survey also attested the empirical findings. Further, the results also support hypotheses H_{11a} and H_{11c}, but it rejects hypothesis H_{11b}.

Profitability (Prof) - The panel data regression results revealed that prof is negatively related to STD. This clearly indicates the use of internal funds in meeting working capital requirements. Profitable firms relinquish higher retained earnings and therefore use their earnings in fulfilling short-term requirements (Hall *et al.*, 2004). However, manufacturing shows a statistically significant positive relationship of debt with prof. This may be because internal funds are not sufficient to fulfill their financing needs and thereby dependency on long-term debt increases. Further, firm performance is an important variable in procuring debt. This has also been pointed out by several SME owners in the preliminary study. They stated that a firm should be continuously profitable to procure long-term loans from banks. Therefore, a positive association is observed for LTD. Further, because the dependency on STD is more in SMEs. It is also supported by various studies that SMEs operating in developing economies are mainly dependent on STD. (Abor, 2005; Abor and Biekpe, 2009; Odit and Gobardhun, 2011).

Prof exhibits a statistically negative association with TD. This is because profitability provides stability in earnings, and hence, more preference is given to external funding. The results are consistent with those of previous empirical studies conducted on SMEs (Michaelas *et al.*, 1999; Hall *et al.*, 2004; Sogorb-Mira, 2005; Daskalakis and Psillaki, 2008; Forte *et al.*, 2013; Mateev *et al.*, 2013).

The results are in line with the opinion of participants except for LTD. Further, the results also support hypotheses H_{12b} and H_{12c}, but they reject hypothesis H_{12a}

Operating Cash Flow (OCF)–The current study proposed that ocf is negatively associated with LTD, STD and TD. Hence, hypotheses H_{13a}, H_{13b} and H_{13c} are unanimously supported by the research findings of this study. The coefficients of ocf are statistically significant for all the gearing ratios examined. Similar results have been reported by Chakroborty (2010) and Mateev *et al.* (2013). OCF is measured by profit after tax plus depreciation. Higher cash flows indicate the higher ability of firms to finance their long-term investments. This thereby implies that firms having greater inflow of cash require less short- and long-term debt.

Non-Debt Tax Shield (NDTS) - NDTS is considered as a substitute of tax shield. The examination of the literature has revealed a negative association of NDTS with leverage.

Therefore, it is expected that a higher NDTS implies less levered firms. Therefore, the current study has hypothesized a negative relationship with all forms of leverage. However, the empirical results have revealed a positive relationship of ndts with STD and TD. This is in line with the study of Dutch SMEs conducted by Degryse *et al.* (2012). The research findings support hypothesis H $_{14a}$ and showcase a negative relationship with LTD. However, it is not statistically significant. The findings clearly imply the mixed relationship of ndts with gearing ratios.

Further, the opinion of participants obtained from the primary survey also presents conflicting views regarding the relationship of ndts with financing decisions.

Size- This study revealed a positive relationship with all forms of leverage. The relationship is significant with STD and TD. It implies that large firms are able procure short-term debt easily as compared to small firms. Zoppa and McMohan (2002) found that STD is positively related to size. This happens in the case of those SMEs which have less access to LTD and are associated with underdeveloped capital markets. Further, larger SMEs are less informationally opaque and more transparent as compared to small firms. Abor and Biekpe (2009) reported that large firms are more diversified and supposed to have less risk and smaller firms are not able to attract long-term debt due to high transaction cost and information asymmetry. The findings support the hypotheses H_{15a} and H_{15c} developed from capital structure theories and the previous studies of SMEs. The empirical findings have also been attested by the opinions of SME owners/managers who participated in the primary survey.

Liquidity (LIQ)-The current study hypothesizes the negative relationship of liquidity with all forms of leverage. Moreover, liquidity depicts a negative relationship with LTD, STD and TD. However, it is statistically significant for STD only. Further, liquidity is mainly related to a firm's ability to meet short-term obligations. Higher liquidity implies lower short-term debt. It also indicates that firms are able to finance their working capital requirements with the help of current assets. Liq is also a less studied variable in the context of SMEs. Moosa *et al*. (2011) indicated it as an important determinant of SMEs in describing financing decision of SMEs. The negative relationship is also supported by the participants of the primary survey conducted on SMEs.

Growth (GR)-This is found to be positively associated with all forms of leverage. The relationship is also statistically significant for all gearing ratios. This implies that firms finance their growth with external debt. Higher growth leads to a higher use of debt. This is probably because growth is associated with some investment in either business

expansion or some assets to enhance the firm's capacity. Thereby, it requires funds and SMEs do not make much profit to support their growth-related activities with internal sources. However, growth will push firms into seeking external financing because firms with lucrative investment opportunities are more likely to put a strain on internal funds and pushes SME owner/managers to take more long-term debt. This justifies the positive relationship of growth with leverage (Michaleas *et al.*, 1999; Nguyen and Ramachandran, 2006; Degryse *et al.*, 2012; Odit and Gobardhun, 2011; Forte *et al.*, 2013). The research findings support the hypotheses H_{17a} H_{17b} and H_{17c}.

Age-This is found to be statistically significant and negatively associated with all forms of debt examined in this study. This implies that older firms use less debt as compared to their younger counterparts. The probable explanation may be the conservative nature and past experience of owners associated with procuring debt (Forte *et al.*, 2013). Moreover, younger firms do not have sufficient retained earnings and these firms therefore resort to external debt for funding their business.

Table 7.11 Two Step GMM Estimation Model for Manufacturing Indian SMEs

The table presents the relationship between the firm specific variables and the gearing ratios of SMEs. First column of each model indicates β coefficients and second column represents the corresponding p value.

	Model 1		Model 2		Model 3	
Predictor Variables						
LEV1(-1)	0.678	*0.000**				
LEV2(-1)			0.451	*0.000**		
LEV3(-1)					0.201	*0.040***
TANG	0.092	*0.617*	0.070	*0.078****	0.611	*0.031***
PROF	0.158	*0.072****	-0.279	*0.000**	-0.178	*0.000**
OCF	-0.671	*0.010**	-0.316	*0.000**	-0.351	*0.000**
NDTS	-0.071	*0.868*	0.100	*0.926*	1.471	*0.358*
SIZE	0.016	*0.148*	0.069	*0.001**	0.171	*0.000**
LIQ	0.000	*0.601*	-0.002	*0.037***	-0.001	*0.000**
GR	0.028	*0.005**	0.126	*0.001**	0.018	*0.662*
AGE	-0.021	*0.089****	-0.036	*0.009**	-0.181	*0.010**
J Statistics	22.353	*0.651*	32.444	*0.179*	11.497	*0.996*
AR 1	-5.650	*0.000*	-6.331	*0.000*	-2.566	*0.010*
AR2	-1.732	*0.083*	-1.201	*0.229*	0.751	*0.452*

*, **, *** indicates significance at 0.01, 0.05 and 0.10 significance level respectively

Lagged Leverage-It is found that for manufacturing SMEs, the lagged leverage ratio lies between 0.2 and0.67. It is significant at the 1% level for all the three models. This visibly shows the importance of previous leverage in determining the present capital structure of

the firm. Further, the coefficient of lagged leverage also indicates the speed of adjustment coefficients (1-Lev_{it-1}) towards the target leverage ratio (Ozkan, 2001). The results indicate that the magnitude of adjustment is moderately or relatively towards the higher side; therefore, SMEs adjust towards their target ratio. This is possibly because cost of adjustment is relatively lower for SMEs as compared to the cost of remaining off target (Ozkan, 2001).

7.3.4.2 Empirical Results for Service SMEs

The dependent variable was also studied in three different forms, namely, LTD, STD and TD and the independent variables are also in line with manufacturing SMEs. The empirical results are presented in table 7.12. The outline of models for service sector SMEs is as follows:

Model 1- For Long-Term Debt

$Lev_{1s} = α_0 + f (Lev_{it-1}, Tang_{it}, Prof_{it}, OCF_{it}, Ndts_{it}, Size_{it}, Liq_{it}, GR_{it}, Age_{it}) + n_i + n_t + ε_{it}$.......eq 7.4

Model 2- For Short-Term Debt
$Lev_{2s} = α_0 + f (Lev_{it-1}, Tang_{it}, Prof_{it}, OCF_{it}, Ndts_{it}, Size_{it}, Liq_{it}, GR_{it}, Age_{it}) + n_i + n_t + ε_{it}$......eq 7.5

Model 3-For Total Debt
$Lev_{3s} = α_0 + f (Lev_{it-1}, Tang_{it}, Prof_{it}, OCF_{it}, Ndts_{it}, Size_{it}, Liq_{it}, GR_{it}, Age_{it}) + n_i + n_t + ε_{it}$......eq7.6

Tangibility (Tang) - A negative relationship is observed between tang and gearing ratios of SMEs. This is probably because there is no requirement of providing collateral for STD. Moreover, this may be because of the inability of SMEs to provide valuable collateral for raising external funds (Cassar & Holmes, 2003; Hall *et al.*, 2000; Nguyen & Ramachandran, 2006). Moreover, financial requirements of service SMEs are fewer as compared to those of manufacturing SMEs. Further, Cressy and Olofsson (1997) also reported that service SMEs face great difficulty in procuring loans due to the high risk associated with the activities of service firms and lower levels of collateral. Further, Psillaki and Daskalakis (2009) provided significant empirical evidence of the negative association of leverage with asset structure for the SMEs of Greece, Italy and France. This may be because of stable profits which discourage firms from obtaining external financing. These firms probably fulfill their requirements by internal funding and thereby necessity of LTD becomes apparently less.

Profitability (Prof) – SMEs operating in the service sector exhibits a negative relationship between leverage ratios and profitability. The empirical results show a negative statistically significant association of prof with STD and LTD. However, the

relationship did not prove to be statistically significant with TD. The findings clearly indicate that SMEs in the service sector prefer internal funds. Serrasquiero (2011) also reported that service SMEs are more profitable than are manufacturing SMEs and hence prefer internal funds to fulfill their financial requirements.

Operating Cash Flows (OCF) - Empirical results exhibited a negative relationship between gearing ratios and ocf. However, the association is not statistically significant for STD and LTD, but it is significant for TD. The literature review also attested the fact that very few studies have examined the relationship of ocf with leverage of SMEs in general and service SMEs in particular. Therefore, this study highlighted the impact of ocf on leverage. However, it does not statistically affect short- and long-term debts. However, it influences the total component of debt and thereby makes it a significant factor in analysing the capital structure decision of SMEs.

Non-Debt Tax Shield (NDTS) - The empirical results showed a contrasting relationship between ndts and gearing ratios as compared to manufacturing SMEs. The ndts is statistically positively related to LTD but shows an insignificant relationship with STD and TD. Serrasquiero (2011) also attested that ndts is not an important factor in explaining the capital structure decision of service SMEs in Portuguese. He further reported that the relationship of ndts and short-term debt is significant only for manufacturing SMEs. This is also in line with assumptions of TOT.

Size-The relationship of size with LTD is observed to be positively associated and statistically significant, whereas service SMEs depicts a negative relationship with STD and a positive association with TD. However, the associations are not found to be statistically significant. Hall *et al.* (2000) also found size as an important determinant for British SMEs. The impact of information asymmetry has been found to be higher in the case of service SMEs (Serrasquiero, 2011).

Liquidity (LIQ)-Liquidity was measured as the current ratio of the firms. The results revealed that it is negatively associated with STD and TD, whereas it is positively associated with LTD. However, the findings are statistically significant only for STD. This visibly implies the high proportion of current assets with service SMEs, and therefore, the requirement of STD becomes relatively small. However, higher liquidity also attracts lenders and sends positive signals about the firm's ability to fulfill its current obligations. Hence, lenders can anticipate the low default risk and may sanction funds to SMEs. However, the findings are not significant enough for generalization.

Growth (GR) - SMEs are often overzealous in their growth aspirations with obvious moral hazard consequences (Myers, 1977). Thus, growth may have uncertain effects on firms' financing. Myers (1977) argued that firms with high growth potential will tend to have a lower leverage. However, the empirical results also show a negative relationship of LTD with gr. However, the predictions are not statistically significant. The growth is statistically significant and positively related to STD and TD. This indicates that banks prefer growth for sanctioning funds (Odit and Gobardhun, 2011).

Age-For service SMEs, age revealed a positive association with STD and a negative association with LTD and TD. However, the relationship is not statistically significant with STD. Therefore, the plausible reasons for the negative association may be the lack of financial creditworthiness over time; older firms also cannot generate long-term debt from the market; moreover, the conservative nature of older SMEs as compared to that of younger SMEs restricts external funding (Forte *et al.*, 2013).

Table 7.12 Two Step GMM Estimation Model for Manufacturing Indian SMEs

The table presents the relationship between the firm specific variables and the gearing ratios of SMEs. First column of each model indicates β coefficients and second column represents the corresponding p value.

	Model 1		Model 2		Model 3	
Predictor Variables						
LEV1(-1)	0.565	*0.000**				
LEV2(-1)			0.593	*0.000**		
LEV3(-1)					0.572	*0.00**
TANG	-0.120	*0.001**	-0.101	*0.018***	-0.144	*0.001*
PROF	-0.145	*0.049***	-0.246	*0.000**	-0.071	*0.376*
OCF	-0.018	*0.743*	-0.052	*0.263*	-0.371	*0.004**
NDTS	2.179	*0.011*	0.170	*0.455*	0.460	*0.651*
SIZE	0.088	*0.015*	-0.025	*0.248*	0.062	*0.100*
LIQ	0.002	*0.233*	-0.006	*0.001**	-0.002	*0.191*
GR	-0.004	*0.540*	0.036	*0.000**	0.034	*0.000**
AGE	-0.173	*0.010***	0.030	*0.433*	-0.174	*0.008**
J Statistics	34.747	*0.145*	22.035	*0.735*	34.571	*0.150*
AR 1	-6.917	*0.000*	-7.381	*0.000*	-8.184	*0.010*
AR2	-1.039	*0.2985*	1.054	*0.292*	-0.477	*0.633*

*, **, *** indicates significance at 0.01, 0.05 and 0.10 significance level respectively

Lagged Leverage- The coefficient of lagged leverage associated has also exhibited a statistically significant positive relationship with all forms of leverage. However, the range of coefficients is almost the same for all leverage ratios (0.57). This implies that the

rate of adjustment towards the target debt ratio is relatively low in service SMEs as compared to that in manufacturing SMEs. Service SMEs are relatively less dependent on debt, and hence, the positive association of leverage with its lagged form is not highly significant for service SMEs

7.3.4.3 Applicability of Capital Structure Theory-The theoretical underpinnings of various capital structure theories are discussed in detail in chapter 2. Capital structure theories are formulated in the context of large firms and mainly in developed economies. Therefore, this study was an attempt to determine the applicability of capital structure theory in the context of Indian SMEs.

This study combined the results obtained from the primary survey and the data collected from secondary sources. This was done to understand the governing theory behind the capital structure decisions of SMEs. The survey questionnaire asked the respondents to indicate their choice in funding long-term investments.

The majority of the respondents indicated that they will fund the project in accordance with internal funding available to them. The responses also favored the choice of dependency on market conditions (see table 7.13). However, some of them also agreed that they will act according to the availability of funds. The least percentage of respondents indicated that they will fund according to the target debt ratio. The results, therefore, are highly oriented towards the applicability of POT in the financing decisions of SMEs. However, decisions are dynamic in nature and cannot be conclusively governed by a single theoretical approach. Nevertheless, as per the findings of the primary survey, POT strongly supports the capital structure decision of SMEs.

Table 7.13 Preference for Financing Long Term Investments

This table presents the frequency of respondents indicating their choice of financing the long term investments

S. No.	Funding Capital Investments	Number of Respondents
1	Follows Hierarchy	113
2	As per market Condition	103
3	Depends on the availability of Funds	69
4	Set a target Debt Ratio	24

The research findings of secondary data also favour the POT. Profitability is negatively associated with leverage and hence supports the possibility that Indian SMEs follow a

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financial hierarchy in their financing decisions. This also suggests that cost of access to funds is quite high for SMEs in India and this may be the reason why SME owners prefer internal funds to external funds.

A negative association of debt with age also indicates the applicability of POT for Indian SMEs. Older and mature SMEs despite having high creditworthiness in the market depend more on internal funds.

Asset structure is really significant in borrowing because it indicates the proportion of tangible fixed assets that can be used for collateralized lending. In India, SMEs are mainly dependent on bank finance for their short- and long-term debt and thus require collateral for the same.

Large firms can easily procure external debt from financial resources. Moreover, smaller firms face high discrimination from lenders and financiers for procuring funds. Therefore, a positive association of size with leverage indicates the applicability of TOT. Further, information asymmetry is high in small firms and the possibility of asset substitution makes lenders reluctant in extending debt facilities to these firms. This also point towards ACT.

Further, the positive association of growth also indicates the preference for debt in funding their future investments. Growing firms have various opportunities, and for investment, these firms require finance. Thus, investment options force firms to have more debt.

It is clear from the above analysis that the factors driving capital structure decisions exhibit varied relationships. As the nature of debt changes, the association also changes accordingly, but for some factors, association also remains the same throughout all the models. This is a clear indication of the presence of the robust and fragile nature of capital structure determinants of SMEs in India. As a result of this, the application of a particular theory is not pertinent for SMEs. Moreover, the results are more biased towards POT, but the presence of TOT also cannot be neglected. Applicability of POT on Indian SMEs was also confirmed by Allen *et al.* (2012).

7.4 RESEARCH FINDINGS

The empirical findings on SME financing indicate tangibility, profitability, operating cash flow, age, size, ndts, liquidity and growth as the major factors affecting the capital structure of SMEs. The effect of these factors was analysed based on the leverage of SMEs. The various measures of leverage applied in this study are long-term debt, short-

term debt and total debt. The research findings pertaining to the final objective of the study are as follows:

1. Overall, it was found that firm-specific factors are primarily responsible for the financing decision of SMEs. Undoubtedly, these factors are governed by the change in macroeconomic conditions. However, the visible effect on financing decisions was derived only from firm-specific factors.

2. Profitability, tangibility, operating cash flow, growth, liquidity, interest expenses are highly important firm specific variables affecting the financing decisions of SMEs.

3. Macroeconomic variables have an indirect impact on the financing decisions of SMEs. This was observed through the changes in the firm-specific variables of SMEs.

4. Interest rate, tax rate, government policy, inflation, economic growth and exchange rate (mainly for export-oriented firms) are important macroeconomic variables. However, their relative importance is low as compared to that of firm-specific variables.

5. Firm-specific determinants are different for manufacturing and service SMEs. Therefore, industry effects are evident from the analysis.

6. For manufacturing SMEs, prof, ocf, liq and age showed a statistically significant negative relationship with STD and TD. However, prof is positively related to LTD and ndts is negatively associated with LTD. Further, tang, gr,size and lagged leverage are positively related to all forms of leverage examined in the study.

7. For service SMEs, tang, prof,ocf are negatively associated with all debt ratios. Liq is negatively associated with STD and TD but positively associated with LTD. Further, size, gr,ndts and lagged leverage are positively related to leverage. However, age exhibits a positive relationship with STD and a negative association with STD and TD.

It is evident from the table 7.14 that the determinants of manufacturing SMEs are different from service SMEs of India and thereby the comparative results of capital structure determinants of SMEs are in line the final hypothesis of the study H_{19}.

Table 7.14 Summary of Relationships- Empirical Evidences v/s Theoretical Predictions

This table compares the relationship of determinants of manufacturing and service SME with leverage ratios.

Predictor Variables	Model 1		Model 2		Model 3		POT	TOT
	MF	SF	MF	SF	MF	SF	AF	AF
LEV1(-1)	+	+						+
LEV2(-1)			+	+				+
LEV3(-1)					+	+		+
TANG	NS	-	+	-	+	-	-	-
PROF	+	-	-	-	-	NS		-
OCF	-	-	-	-	-	-	-	+
NDTS	NS	+	NS	NS	NS	NS	+	+
SIZE	NS	+	+	NS	+	NS	+	+
LIQ	NS	NS	-	-	NS	NS	-	+
GR	+	NS	+	+	+	+	-	+
AGE	-	-	-	NS	-	-	+	-

MF=Manufacturing firms; SF=Service Firms; AF= All Firms; NS=Non-Significant

8. The results markedly indicate the applicability of POT in Indian SMEs. It is also clear that financing decisions also depend on the owner's decisions because in some cases the relationship between leverage and firm-specific variable is completely due to the conservative nature of owners. However, the presence of TOT cannot be overlooked.

7.5 CONCLUSION

This chapter describes the role of firm-specific factors in financing decisions, and it also helps in illustrating the position of SMEs in terms of their leverage. The study also analyses the leverage in different forms and thereby establishes the importance of short-term debt for SMEs as compared to other forms of finance. The study also independently provides an insight into the factors affecting the financing decisions of manufacturing and service SMEs. In this way, the study adds to the knowledge of new and established SMEs in India. Therefore, this research will help new firms in understanding the impact of short-term lending in the financing decisions of SMEs. The exclusivity and specificity of this study lie in the fact that it is among the very few studies on the capital structure of SMEs in India.

CHAPTER -8

FINDINGS, RECOMMENDATIONS AND AVENUES FOR FUTURE RESEARCH

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FINDINGS, RECOMMENDATIONS AND AVENUES FOR FUTURE RESEARCH

Preface

This chapter draws the conclusions for the study. It reviews the results of the study and its contribution to the literature. It also highlights the managerial and policy implications for regulators in India. The final section discusses the limitations of the study and offers suggestions for future research.

8.1 INTRODUCTION

This study highlights the financing behaviour of small- and medium-sized enterprises (SMEs) and illustrates the financing preferences of SMEs in India. This research determines the association between financing preferences and practices of SMEs and also evaluates the differences between existing and preferable financial resources of SMEs. Further, the study investigates the determinants of capital structure of manufacturing and service SMEs in India. The present chapter recapitulates the major findings of the study. This chapter also presents the importance and contribution of the study followed by its scope and limitations. Finally, the study proposes suggestions for future research.

8.2 KEY FINDINGS

The central aim of the study hovers around the issue of financing constraints faced by Indian SMEs. The matter of accessibility and availability of desired financial resources is under-researched among Indian SMEs. Hence, this study of financing preferences with respect to current financial resources is essentially required to develop an understanding about the need of Indian SMEs. This section discusses the key findings in the context of specific aims and objectives of the study.

8.2.1 Findings of the Preliminary Study

The preliminary study was conducted on 44 SME owners of northwest India. This study makes an exploratory attempt to identify the main reasons behind the accessibility and availability of financial resources. This explicitly examines the funding gap faced by SMEs in India. It classifies the financing constraints primarily into four gaps, namely, demand, knowledge, supply and benevolence.

8.2.1.1 Demand Gap- This gap develops due to the lack of demand for financial resources from SME owners. The main factors that reduce the demand for financial resources among SMEs are cost of credit, collateral requirement, cumbersome

procedures, high moratorium period, self-abstaining for external funds, past experience of owners and insufficient information dissemination about financial products and services. All these factors collectively reduce the demand for external financial resources among SMEs. It mainly indicates that owners prefer to use internal funds rather than external funds.

8.2.1.2 Knowledge Gap- This highlights the lack of knowledge about the available financial resources in the market. SME owners are not aware about the various financial products and services offered by external financiers. This is primarily due to the absence of management professionals' expertise in running organizations. Basically, SMEs are primarily operated by owners of these firms and it is quite possible that they lack the required financial management skills. This particular gap coupled with factors associated with demand gap further widens the funding gap of SMEs.

8.2.1.3 Supply Gap- This gap arises when there is a demand for a particular resource but the supply side is not able to furnish it promptly and adequately. The main factors identified in widening the supply gap of financing among Indian SMEs are improper presentation and reporting of financial statements required by formal lenders and financiers, relatively poor financial performance (in terms of profitability), information asymmetry, creditworthiness of the borrower, bureaucratic environment, scarcity of external investors for SMEs, limited availability of financial products and transition stage of capital markets. All these factors jointly increase the width and breadth of the supply gap.

8.2.1.4 Benevolence Gap-This primarily develops because of reluctance of banks/financial institutions in providing finance to SMEs. This is basically due to the inability of banks to evaluate their creditworthiness, higher mortality rate, presence of non-performing assets in banks because of SMEs and probability of a higher default risk associated with these firms.

Therefore, the preliminary study highlights the most frequent issues faced by firms. These findings along with the gaps in the previous literature support the study of identifying the financing preferences of SMEs. Therefore, this study develops a fundamental base to explore the financing preferences with respect to different resources. It thereby highlights the specific gap faced by SME owners in terms of a particular financial resource. This study paves the path for the main study. The next section illustrates the findings of the main study explicitly in the perspective of the stated research objectives.

8.2.2 Findings of the Main Study

This section presents the research findings of the study based on research objectives. The first research objective deals with the identification and analyses of financing preferences of Indian SMEs. It has been analysed by examining every possible dimension of financing preferences. The key findings pertaining to identification of financing preferences of SMEs in India are as follows:

8.2.2.1 Financing preferences of SMEs –The preference of SME owners for different financial resources is as follows:

1. Internal financing sources are the most preferred sources of finance that includes retained earnings, personal funds and funds from group companies.

2. SMEs exhibit preference for bank financing in the form of short-term loans followed by cash credit and bank overdraft facility.

3. Among long-term financing sources, long-term loans, funds from governments and financial institutions are preferred by SMEs.

4. Firms prefer formal sources of finance to informal sources. Although preference for funds from money lenders and family friends and relatives is relatively less as compared to preference for other sources, trade credit has been highly preferred by Indian SMEs among informal resources.

5. The preference for external equity funds is very low among Indian SMEs. Although the respondents preferred to avail public equity, funds from venture capitalists and business angels, the percentage is relatively small. This clearly indicates that equity markets are in the nascent stage for SMEs in India.

8.2.2.2 Financing practices of SMEs-The study also surveyed the existing financing practices of SMEs and determines whether they are similar or different from each other. The major findings related to the comparison of availed and preferred financial resources are as follows:

1. Empirical evidence also shows a statistically significant difference between financing preferences and practices of Indian SMEs, especially those involving formal lending. On the contrary, there is no statistically significant difference between the use and preference of informal financial resources among Indian SMEs.

2. Further, the study also identifies the financing gap between availed and preferred financial resources at different stages of a firm's life cycle. It has been observed that financing preferences do not match with the financing practices of SMEs

across different stages of the life cycle. The majority of the firms availed owner's funds and funds from family, friends and relatives and funds from money lenders as a major source of finance at the early stage. Bank financing, accessibility of funds from financial institutions and from government funding is highly preferred through all stages of a firm's life cycle. However, the gap is reduced for bank financing in the growth and maturity stages but the heavy dependence and preference for internal financing is observed through all stages.

3. Financing through government schemes was not availed by the majority of SMEs in the sample. This is because the majority of the respondents are not aware of the financing schemes implemented by the government.

8.2.2.3 Association between financing preferences and practices of SMEs-It is well documented by the findings of the first research objective that financing preferences of SMEs are statistically different from the existing financial resources used by these firms. The next research objective of the study pertains to the identification of association (if any) between financing preferences and practices of SMEs. The key findings of this research objective are as follows:

1. There is a high correlation between the use and preference for IEF. This implies that internal financing is both preferred and availed by the majority of the respondents. Further, those who are using internal finance prefer informal resources to formal resources. This evidently supports the point raised in the preliminary study that self-abstaining for external funds by SME owners also widens the funding gap. The SME owners, who used more formal resources, are expected to prefer future funding from formal institutions for meeting their financial needs.

2. SME owners/managers stating a high usage of other forms of financing also prefer further financing alternative channels such as trade credit, funds from family, friends and relatives and funds from money lenders. They also prefer funds from internal sources followed by short-term sources of finance. However, they do not prefer funds from long-term sources of finance.

3. The preference for external equity is not statistically correlated with any of the financial sources availed by SMEs. However, it exhibits a negative correlation with other forms of financing. This implies that the majority of the respondents do not prefer external equity in their financial structure.

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8.2.2.4 Variation of financing preferences across firm and manager/owner features

The study also examines the differences between financing preferences across firm and owner/manager characteristics. The major findings are summed up below-

1. Firm characteristics including legal status, business state, firm size, sector, and export activity affect financing preferences. Private limited firms exhibit a higher preference for all types of financial resources than sole proprietorships and partnerships.

2. Business state affects financing preferences. For example, the preference for IEF increases as a firm moves from the start-up and growth stages to the maturity and expansion stage and the preference for EEF decrease.

3. Financing preferences for IEF, STF, and LTF increase with firm size. Respondents from export-oriented firms exhibit a greater preference for STF, OFF, and EEF than non-exporters.

4. Financing preferences also differ based on owner/manager characteristics. Females exhibit a high preference for EEF whereas males show a stronger preference for IEF, LTF, and OFF.

5. The preference for IEF increases with each age group.

6. The preference for using EEF generally increases with higher education levels.

7. Greater business experience is associated with higher preferences for IEF, STF, LTF, and OFF but a lower preference for EEF.

8. Compared to non-owners, owners show a lesser preference for using EEF but a greater preference for using OFF.

8.2.2.5 Relationship between SME owner/manger's attribute and financing preferences of SMEs

The financing decisions of SMEs are primarily governed by the owner's decision. Therefore, it becomes imperative to examine the effect of SME's owner-/manger attribute on the financing preferences of SMEs. The results associated with this objective are as follows:

1. IEF is positively associated with educational level and negatively associated with the experience and gender of the respondent. This implies that highly educated respondents prefer internal funds. However, highly experienced respondents do not prefer finance from retained earnings and from owner's funds.

2. STF is positively related to education and experience. It indicates that highly educated and experienced respondents prefer short-term financial resources for fulfilling the financial needs of their firms.

3. LTF is positively related only to gender of the SME's owner/manager. This indicates that males prefer long-term financing resources as compared to females.

4. OFF is positively related to ownership and negatively with educational level of respondents (Graduate v/s post graduate). This implies that owners prefer OFF more than non owners and post graduates prefer less OFF when compared with graduates.

5. EEF is negatively related to gender and ownership status of the respondents. This implies that female respondents prefer more equity from outside as compared to male respondents. However, owners prefer less external equity as compared to non owners. Further, a negative relationship between experience and EEF indicates that respondents having a high working experience prefer less external funds as compared to those having experience of <10 years.

8.2.2.6 Firm Specific Determinants of Capital Structure-The final objective of the study attempts to examine the determinants of capital structure of SMEs in India. The key findings of this objective are summarized below-

1. Overall, the study finds out that firm specific factors are primarily responsible for the financing decision of SMEs. Undoubtedly, these factors are governed by the change in the macroeconomic conditions. But, the visible effect on the financing decisions has been derived from firm specific factors only.

2. Profitability, tangibility, operating cash flow, growth, liquidity, interest expenses are highly firm important specific variables affecting the financing decisions of SMEs.

3. Macroeconomic variables have indirect impact on the financing decisions of SMEs. It has been observed through the changes in the firm specific variables of SMEs.

4. Interest rate, tax rate, government policy, inflation, economic growth and exchange rate (mainly for export oriented firms) are the important macroeconomic variables. However, there relative importance is low as compared to firm specific variables

5. Firm specific determinants are different for manufacturing and service SMEs. Therefore, industry effects are evidently visible from the analysis.

6. For manufacturing SMEs, prof, ocf, liq and age have shown statistically significant negative relationship with STD and TD. However, prof is positively related with LTD and ndts is negatively associated with LTD. Further, tang, gr size and lagged leverage are positively related with all forms of leverage examined in the study

7. For service SMEs, tang, prof , ocf are negatively associated with all debt ratios. Liq is negatively associated with STD and TD but positively associated with LTD. Further, size, gr , ndts and lagged leverage are positively related with leverage .However, age exhibits positive relationship with STD and negative association with STD and TD.

8. The results have markedly pointed out towards the applicability of POT in Indian SMEs. It also points out that the financing decisions are also depends on the owners decisions because in some cases relationship between leverage and firm specific variable is completely due to the conservative nature of owners.

8.3 CONTRIBUTION OF THE STUDY

This study contributes to a better understanding of financing preferences and practices of Indian SMEs. This study portrays the various preferred and existing sources of finance. This study also draws attention to the existing financing gap by comparing the difference between preferred and used sources of finance by SMEs. The study makes significant contribution to the body of knowledge. This section illustrates the importance of the study. This research contributes to the theoretical, methodological and practical knowledge in developing an understanding towards the financing behaviour of SMEs in India.

8.3.1 Theoretical Contribution

This study appends the literature on financial studies of SMEs. It examines the financing of SMEs from various dimensions. The study adds to the theoretical knowledge by providing the new empirical evidence on SME financing. It also examines the capital structure determinants of Indian SMEs which is relatively lesser studied in the Indian context. The study bridges the gap between theory and practice by testing the applicability of capital structure theories in the context of Indian SMEs. This study also contributes to the corporate finance literature by bridging the gap of the scarce research on the financing preferences and capital structure determinants of SMEs in India. The topic of financing preferences of SMEs is understudied in India and thus opens up an opportunity to gauge this area. Overall, the study contributes to the extant body of

knowledge by providing first-hand evidence on financing preferences and practices of SMEs in India.

8.3.2 Practical Contribution

The work contributes to the awareness of financing behaviour of small firms in India. The findings of this study will enable SMEs to get a better understanding of factors that may have a relationship and also influence on their preferences for different sources of finance available in the market. This study also highlights the potential lending market available to public and private financing institutions in the form of SMEs. Findings on preferences for different sources of financing and the capital structure of SMEs should be taken into consideration by policymakers in developing financial assistance for the Indian SMEs. This study reveals the major forces driving the financing decisions of SMEs and thereby it can assist managers/owners to focus on these factors while deciding about the capital structure of the firm. In fact, it is a two-way process; on the one hand, it examines the factors affecting the financing of SMEs, and on the other hand, it will also help in developing an understanding related to future planning of the financial structure of the firm. The study provides a comprehensive view on the financing practices of SMEs in the northwestern region of India and thereby helps in providing a framework required for providing financial assistance to SMEs from various bodies. This also assists policy makers in developing effective ways of supporting the growth of SMEs in India. This research help managers in identifying the factors affecting the financing decisions of firms and the impact of their behaviour on the ability to access the available sources of finance. The study also analyses the leverage in different forms and thereby establishes the importance of short-term debt for SMEs as compared to other forms of finance. The study also provides an insight into the factors that independently affect the financing decisions of manufacturing and service SMEs. In this way, the study adds to the knowledge of new and established SMEs in India. Therefore, the research will help new firms in understanding the impact of short-term lending in the financing decisions of SMEs. The study also assists owners/managers of SMEs in the analysis of demand and supply of capital to overcome the financing gap and thus in identifying the growth and investment opportunities for SMEs.

8.3.3 Methodological Contribution

This study also makes a methodological contribution to the literature by using the mixed method approach (triangulation) to investigate the financing preferences and capital structure determinants of SMEs in India. The interviews and survey questionnaire were

conducted in an attempt to identify and analyse the financing preferences of SMEs. The interviews assist in providing the explanation behind the financing preferences. Further, the findings of primary data were also in line with the findings of the secondary data. This lends mutual support to the results obtained from the primary and secondary studies.

8.4 RECOMMENDATIONS

On the basis of the research findings, the following recommendations are suggested for SMEs owners and policy makers:

8.4.1 Small Business Owners

SME owners/managers should be aware of the factors that may influence their financing decisions. They should be well aware of the available financial products that can help in increasing the firm's value at the minimum cost.

1. SME owners should pay more attention to reducing the information gap so that accessibility of funds can become easy for their firms. They should understand that information opacity will prevent firms from availing loans from formal financial resources. Therefore, SME owners should take positive initiatives in improving their firm's accessibility for debt and equity financing by implementing a transparent accounting system. Credit rating by agencies such as SMERA, CRISIL and ICRA also help in establishing the creditworthiness of a firm.

2. SMEs should pay attention to upgrading their financial management skills.

3. SME owners/managers can develop a high level of confidence and trust among lenders or financiers through disclosing well-prepared financial statements.

4. SMEs also need to assess the cost associated with their control and risk aversive attitude. It might hinder their ability to grow and prosper, SME owners/managers should be aware of the adverse effects of their decisions on the business performance of the firm.

5. Over-investment issues should be avoided to reduce the agency cost issue related to debt financing.

6. Owners should understand the trade-off between using internal and external funds. Sometimes, owners/managers may underestimate the opportunities to enhance the value if they do not use debt.

8.4.2 Policy Makers

The findings of this study are also beneficial to the policy makers/government authorities in improving the financial ecosystem for SMEs:

1. The identification of financing preferences of SMEs will help policy makers in understanding the needs of the SME sector. It will also highlight the fact that "one size fits all" policy will not work for this heterogeneous sector. Therefore, a clear demarcation of the financial needs of micro, small and medium enterprises should be made by the authorities concerned. The present study also documents that financing preferences are different across firm size and sector.

2. SME owners/managers generally abstain from using external financial resources. Profitable firms prefer and use internal resources to external resources. Moreover, the current financing practices indicate that SMEs use more informal resources as compared to formal resources; however, it evidently indicates the supply side financing constraints. Therefore, government authorities should be well aware of the discrepancy in demand and supply of financial resources. Policy makers should try to reduce the supply side barriers to make financing accessible to those firms who give preference to formal channels of financing.

3. There should be proper dissemination of information about any financial scheme launched by the government. It is evident from the study that the majority of SMEs do not know about the various financial assistance provided by the ministry of MSME. Another plausible reason behind the low success rate of government financing schemes is bureaucracy and red-tapism in India. Therefore, the authorities should try to curb these malpractices for smooth and effective transfer of financial benefits to the needy firms

4. There should also be a provision of low cost and non-default loans to small and young traders and manufacturers so as to support them in establishing their business and creditworthiness in the market.

5. Policy makers should encourage SMEs to be more transparent in their financial dealings. This will indirectly enhance the accessibility of various financial resources by SMEs because financiers and lenders can easily assess the creditworthiness of a firm.

6. Financing policies for the SME sector should be tailored as per the requirements of Indian SMEs.

8.4.3 Financial Institutions

Implications of the study can also be drawn for financial institutions engaging in lending to SMEs.

1. Many SMEs are unwilling to borrow from financial institutions due to stringent lending requirements. Besides analysing the consistent past performance of the firm, these institutes should focus more on the future yielding aspects of SMEs.

2. Credit policies should be customized as per the requirement of industry and the owner.

3. Financial institutions must develop some methods to distinguish between the good and bad risk proposals of SMEs. This can solve the issue of granularity that restricts the supply of finance to the potential firms. These institutes also consider accepting more items as collateral (i.e. other than fixed assets such as receivables, inventory and equipment) (Fagan and Zhao, 2009).

4. Financial institutions should try to reduce the moratorium period and thereby reduce the delay in loan reimbursement due to complex and cumbersome procedures.

8.5 LIMITATIONS AND SCOPE OF THE STUDY

The results, contributions and implication of the current study should be considered with the following limitations:

1. Owing to the humongous number of SMEs in India, the sample size chosen for the study is relatively smaller. Therefore, a cautious approach must be taken for the generalization of results for SMEs across the country. However, data collection is quite a difficult task for SMEs especially for the statements related to the financial aspects of a firm. Further, the general unwillingness of respondents to participate in the survey also limits the sample size. Therefore, limitation of the small sample size cannot be avoided.

2. The present study focuses only on the SMEs in north western India and this further limits the research findings of the study.

3. The range of predictor variables used to describe the financing preferences of SMEs is relatively small. The behavioural aspects of SME owners/managers were not been taken into consideration while examining the relationship between financing preferences of SMEs and owner/manager attributes.

Besides all limitations, the study provides significant empirical evidence about the current status of financing preferences and determinants of the capital structure of

SMEs in India. This work successfully justified the need for studying the financing behaviour of SMEs in the Indian context.

8.6 FUTURE RESEARCH DIRECTIONS

1. Until recently, research has been mainly focused on firm-specific variables of capital structure. However, manager-/owner-specific variables, such as their growth intentions, education, risk propensity and experience, should be studied in detail to provide a more transparent view on capital structure decisions.

2. Future researchers should study SMEs beyond the northwest region of India. They could also examine the influence of social capital and relationship lending in deciding the financial structure of firms.

3. Further studies should examine factors that motivate or hinder SMEs from obtaining funds from Indian capital markets.

4. Future research also calls for the study of factors, which motivates or compels SME owners to choose a particular form of financing. Moreover, more research is necessary to determine new avenues of financing for SMEs and thereby build a conducive financial atmosphere for one of the major fundamental supports of the Indian economy.

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ANNEXURES

RESEARCH QUESTIONNAIRE

Malaviya National Institute of Technology Jaipur
J.L.N. Marg Jaipur-302017
Department of Management Studies
<u>Questionnaire- Cover Letter</u>

Dear Respondent,

I introduce myself as a Research Scholar at Department of Management Studies, Malaviya National Institute of Technology Jaipur, pursuing Ph.D thesis titled *"Financing Preferences and Determinants of Capital Structure – A study on Small and Medium Sized Enterprises"*.

The prime objective of the study is *to know about financing preferences of small and medium sized enterprises in India*. The study will also elucidate *the factors affecting the financing decisions of SMEs* and helps in providing a comprehensive view on the financial resources utilised and preferred by SMEs. The outcome of this study is expected to highlight the preferable sources of finance for SMEs and thereby, to appraise to the government and Ministry of Micro, Small and Medium Enterprises (MSME) various problems faced by SMEs and to suggest what kind of support for the financing of small and medium-sized enterprises is needed in India.

I am enclosing a research questionnaire as a web link with this email and request you to kindly respond to it. You are also welcomed to put your suggestions and comments. I have approached you because you have held positions such as owner of firm, finance manager, accountant, finance executive or having similar positions. If you are not the right person to fill this questionnaire, I will be grateful if you could forward this questionnaire to the relevant person. Your response will enhance the reliability of the findings of this research. The validity of the questions will increase if all questions are answered completely and accurately. I assure you that it is purely an academic exercise and the information supplied by you would be kept strictly confidential and at no point of duration the identity of your organization/person will be disclosed. Further, respondent(s) may respond to questionnaire in their personal capacity. Completed questionnaire may be sent through email at: rao_purnima321@yahoo.co.in/sunshineisrao@gmail.com

Thank you in anticipation, for your helpful response.

Sincerely

PurnimaRao

Research Scholar

SURVEY ON FINANCING PREFERENCES AND DETERMINANTS OF CAPITAL STRUCUTRE OF SMES

Section 1-Firm Profile

Please choose the suitable option for your firm (A-F)-

A. Type of Firm

i Sole Proprietorship
ii Partnership
iii Private Limited
iv Public Limited
v Limited Liability Partnership (LLP)

B. Sector

i Manufacturing
ii Services
iii Manufacturing Related Services
iv Agriculture
v Agro-Based Industries
vi Information Communication Technology
vii Others (please specify)_____

C. Annual Sales Turnover (INR)

i Less than 1crores
ii 1-5 crores
iii 6 -20crores
iv 21- 50crores
v 51-100 crores
vi More than 100 crores

D. Size of the firm as per investment made in Plant and Machinery(INR)

i 0-10 lakhs
ii 10 lakhs-20 lakhs
iii 20 lakhs -500 lakhs
iv 25 lakhs -500 lakhs
v 500 lakhs-10 crores

E. Foreign Sales as percentage of Total Sales

i 0%
ii 1-20%
iii 21-40%
iv Above 40%

F. Please indicate the status of average profitability of your firm for the last three years

i Increased
ii Decreased
iii Constant (No change)
iv None of the above

G. Year of Incorporation of your firm_____

H. Please indicate the stage of your business
i. Start-up
ii. Growth
iii. Maturity and Expansion

Respondent Profile

A. Gender- Male/Female

B. Age of the Respondent (in years)

i Less than 25
ii 26-35 years
iii 36-45
iv 46-55
v 56-65
vi Above 65

C. Highest level of Educational Qualification

i School Certificate
ii Diploma
iii Graduation
iv Post Graduation
v Ph.D Degree
vi Others (please specify)

D. Did you have any working/business experience prior working with/running this present business? Yes/No *(Proceed for question E, in case your answer is yes for question D)*

E. Your role in the previous organisation............ (Please mark more than one option if applicable)
      i. Owner   ii Employee   iii Other (Please Specify)
F .Total Experience (in years)..........................

G. Are you the owner of this business? Yes/No

H. Length of service with present business (in years)...............

I. How you have started your business?   i. Purchased ii. Family Business iii Started from the scratch

J. Why you have started doing business? i. Entrepreneurial Skills ii. Financial-Awards iii. No Job after College iv. Job Dissatisfaction v. Business Expansion vi. Retrenched from a public Sector

Section 2-Financing Preferences and Current Financial Structure of a Firm

Part A – Preferable Financial Resources
A1. Indicate your level of preference using the following scale-

Sources of Funds –Internal Financing

	Very Low Preference	Low Preference	Neither High nor Low Preference	High Preference	Very High Preference
Owner's Fund					
Retained Earnings					
Funds from Group Companies					

Others *(Please Specify)*_____

Source of Funds –External Financing

	Very Low Preference	Low Preference	Neither High nor Low Preference	High Preference	Very High Preference
Short Term Loans					
Bank Overdraft					
Cash Credit					
Trade Credit					
Long Term Loans					
Government Financing Schemes					
Financial Institutions					
Export Import Finance					
Venture Capital					
Business Angels					
Money Lenders					

Funds from Friends Family and relatives					
Funds from other companies					
Funds through IPOs					

Others *(Please Specify)*-...............................

Financing Terms

	Very Low Preference	Low Preference	Neither High nor Low Preference	High Preference	Very High Preference
Short Term Financing *(Repayment in less than 1 year)*					
Medium Term Financing *(Repayment in 1-5 years)*					
Long Term Financing *(Repayment in more than 5 years)*					

A2. Please rank the following sources of funds preferable for financing your firm's long term investments-

(1=first choice, 6= last choice)

   i.   Internal funding (retained earnings/owner's capital)...............___
   ii.   Bank Financing...___
   iii.   External Equity ....___
   iv.   Funds from family friends and relatives..............................___
   v.   Government funding...___
   vi.   Money Lenders/...___

Section 3 –Current Financial Structure of Firm

A1. Please indicate the approximate proportion of the following out of your firm's total funding (e.g. 20%, 35%, 50% etc). All sources when added up must be equal to 100%

Type of Liability	As a Percentage of Total Liability
Short Term	
Long Term	
Owner's Capital	
Total	100%

A2. Based on the following scale, please indicate the usage of following sources of funds by the firm in the last 3 years-

	Not at all Used	**Somewhat Used**	**Moderately Used**	**Highly Used**	**Extremely Used**
Trade Credit					
Bank Overdraft					
Cash Credit					
Short term Banks Loans					
Long Term Loans					
Retained Earnings					
Owner's Funds					
Funds from Friends Family and Relatives					
Funds from group companies					
Funds from Financial Institutions					
Funds from Government					
Export Import Finance					
Funds from other firms					
Funds through Fixed Deposit					
Funds from Money Lenders					

Other Sources *(Please Specify)*..

Section 4 -Type of Financing Preferred and Availed in during Different Phases of Firm's Life Cycle

A1. Start-up Stage

	Own Funds	Funds From Family and Friends	Venture Capital	Business Angels	Money Lenders	Banks	Government Funding	Financial Institutions	Crowd Funding	Others
Availed										
Preferred										

In case, you choose others, then please specify...

A2. Growth Stage

	Own Funds	Retained Earnings	Funds From Family and Friends	Venture Capital	Business Angels	Money Lenders	Banks	Govern-ment Funding	Financial Institutions	Financial Market-Debt/Equity	Others
Availed											
Preferred											

In case, you choose others, then please specify..

A3. At Maturity Stage

	Own Funds	Retained Earnings	Funds From Family and Friends	Venture Capital	Business Angels	Money lenders	Bank	Govern-ment Funding	Financial Institutions	Financial Market-Debt/Equity	Others
Availed											
Preferred											

In case, you choose others, then please specify...

Section 5- Determinants of Capital Structure

A. In funding capital investment, your firm-

    i.   seeks to maintain a constant debt equity ratio
    ii.   follows a hierarchy in which certain sources of funds used are exhausted before other sources are used
    iii.   decides as per market condition
    iv.   does not invest
    v.   Others (please specify)..

B Based on the following scale; please indicate the importance of the following factors in considering your firm's financing decisions-

	Not at all important	Somewhat important	Moderately important	Highly important	Extremely important
Firm's Age					
Profitability					
Liquidity					
Asset Structure					
Firm's Growth					
Non Debt Tax Shield					

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Operating Cash Flow					
Interest Expenses					
Industry Trend					

C .Based on the following scale; please indicate the importance of the following macro-economic factors in considering your firm's financing decisions-

	Not at all important	Somewhat important	Moderately important	Highly important	Extremely important
Interest Rate					
Investment Rate					
Economy Growth					
Inflation					
Political Stability					
Government Policies					
Tax Rate					
Exchange Rate					
Access to Technology					

D. Please indicate your opinion on the following statements based on these scales-

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
Profitable firms have more retained earnings and therefore, have a smaller need of external finance					
Less profitable firms having an investment opportunity will be more willing to use external funds					
Smaller firms are often discriminated by banks or financial institutions when applying for external debt finance					

	Strongly Disagree	**Disagree**	**Neither Agree or Disagree**	**Agree**	**Strongly Agree**
Large firms have good reputation					
Firms with a high level of fixed assets pledging collateral to secure debt finance.					
Firms with more assets and collaterals available face fewer obstacles in receiving debt					
Firms with greater growth opportunities have more access to bank funds					
High growing firms do not have sufficient retained earnings to finance their investments					
Older firms have high creditworthiness to the creditor					
Older and more experienced firms require less external financing due to high capital reserves					
Firms with greater liquidity may use their liquidity to finance their investments					
A higher liquidity indicates a greater firm's ability to meet short –term obligations					
Tax deductions for depreciation expenses can be used as substitutes for the tax benefits of debt financing.					
The tax advantage of debt decreases when other tax deduction increases.					

INDUSTRIAL PROFILE OF FIRMS

The table presents the industry of the SMEs in the study sample (309). The others category comprises of firms having percentage less than 3% in the sample. It basically includes small scale soap manufacturers, leather products, printing etc. Service sector enterprises include consultancy firms and trading firms etc.

S.No.	Name of Industry	Frequency	Percentage
1	Handicrafts	28	9%
2	Textile	28	9%
3	Garments	23	7%
4	Jems and Jewellery	22	7%
5	Auto Ancillaries	17	6%
6	Food Processing Industry	15	5%
7	Lock Industry	14	5%
8	Metal Equipments	13	4%
9	Marbles	13	4%
10	Others	13	4%
11	Pipes and Polymers	12	4%
12	Pharmaceutical	11	4%
13	Furniture	9	3%
14	Chemical	8	3%
15	Ball and Bearings	8	3%
16	Packaging	8	3%
17	Carpet	7	2%
18	Electric Wires and Cables	7	2%
19	Service Sector Enterprises	53	17%
	Total	309	100%

NORMAL Q-Q PLOT FOR FINANCING PREFERENCES

Following figures show the normal Q-Q plot for the level of financing preferences measured on a 5 point Likert type scale

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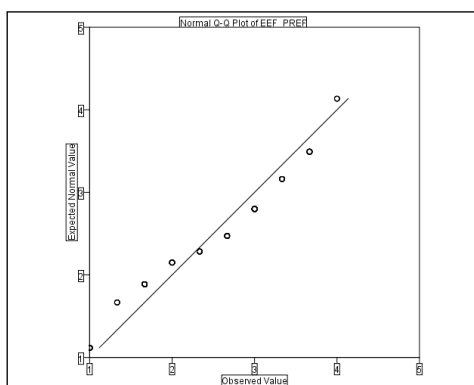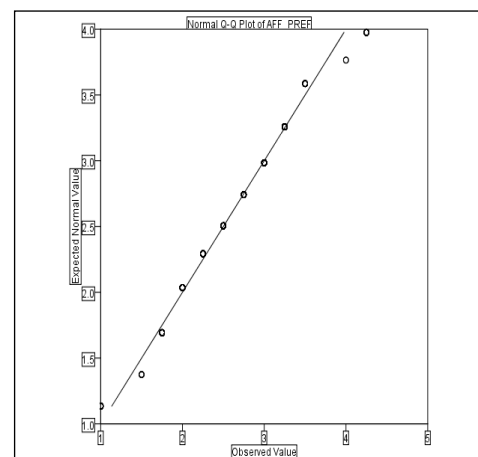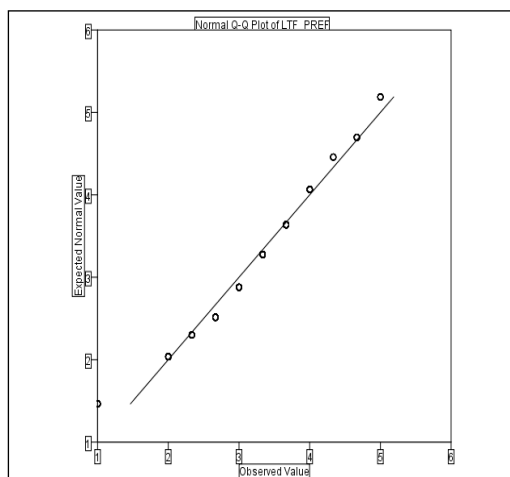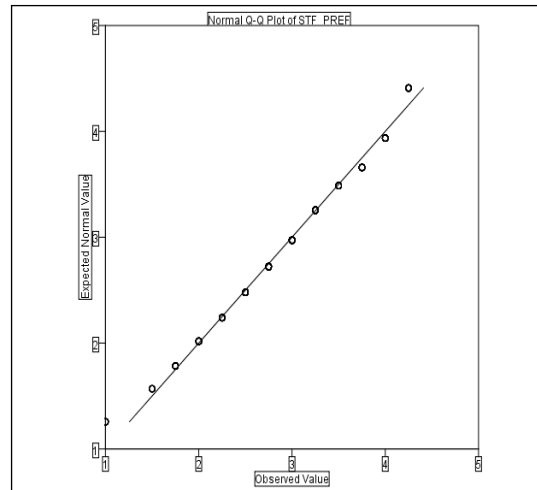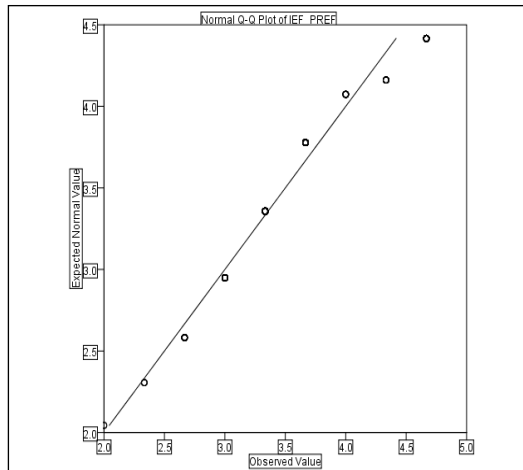
NORMAL Q-Q PLOT FOR FINANCING PRACTICES

Following figures show the normal Q-Q plot for the financing practices measured on a 5 point Likert type scale
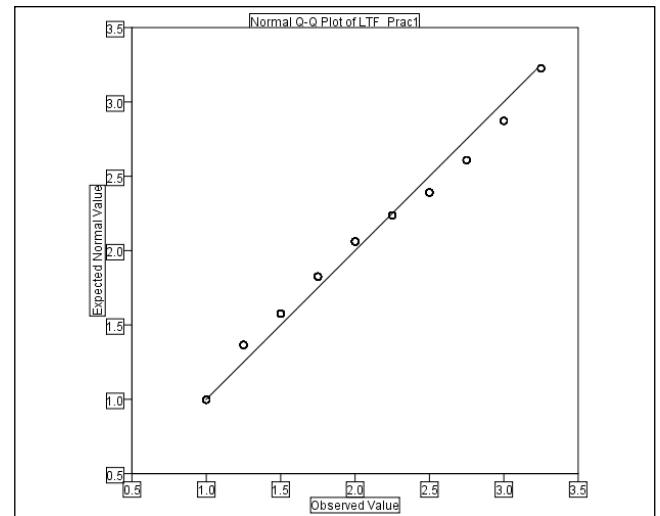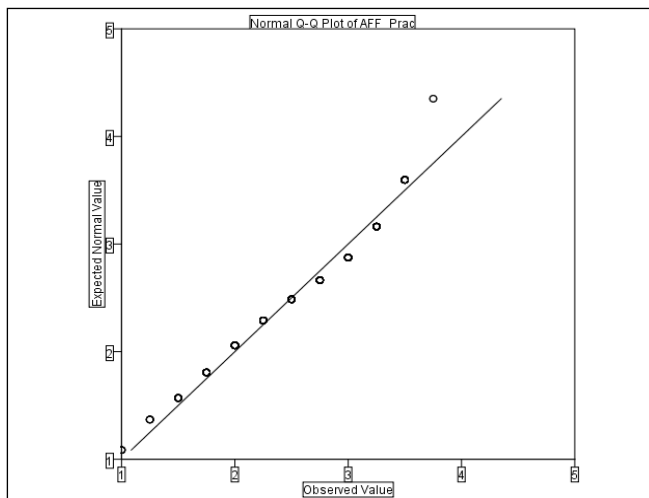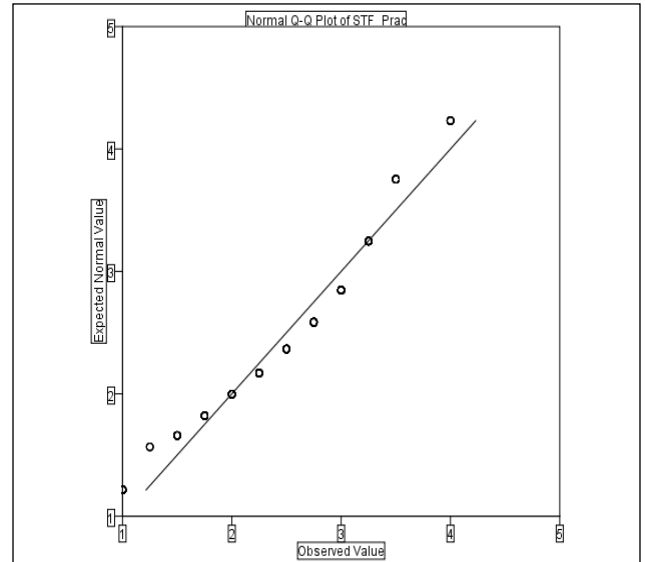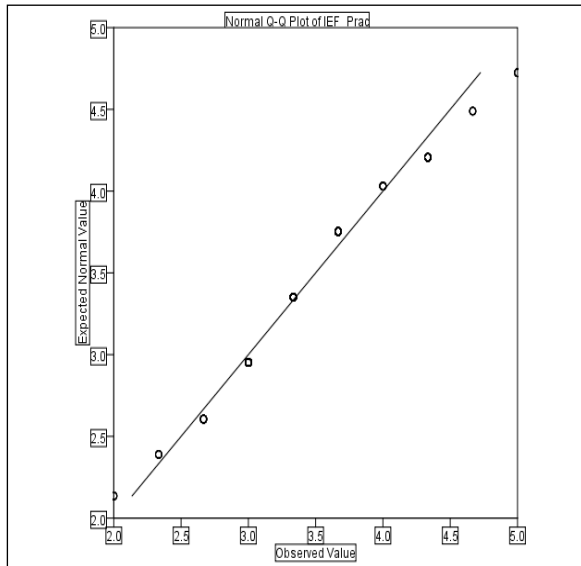
HISTOGRAM FOR RESIDUALS OF FINANCING PREFERENCES

Following figures show the histogram for residuals for the financing preference
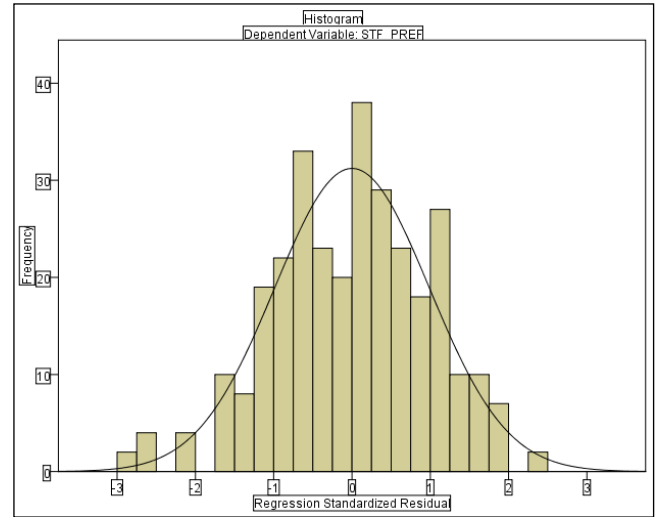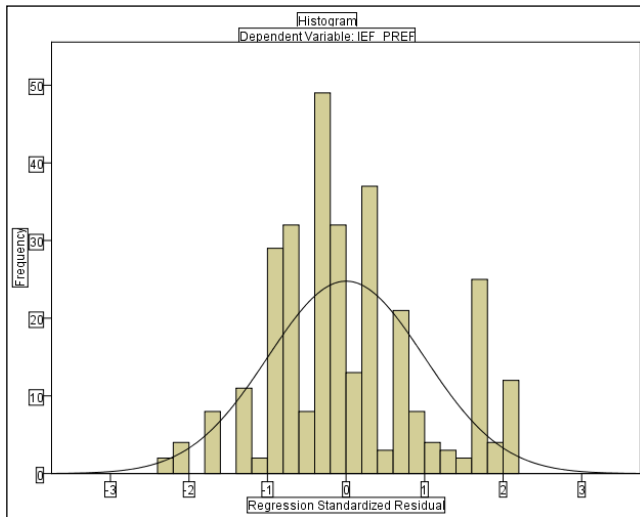
measured on 5 scale.   *point likert type*

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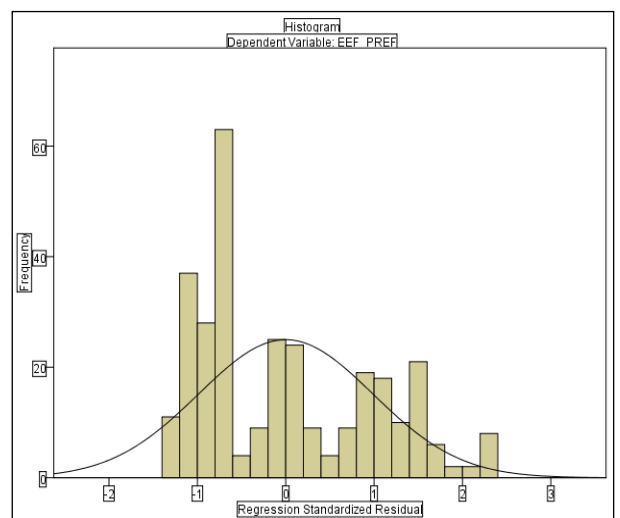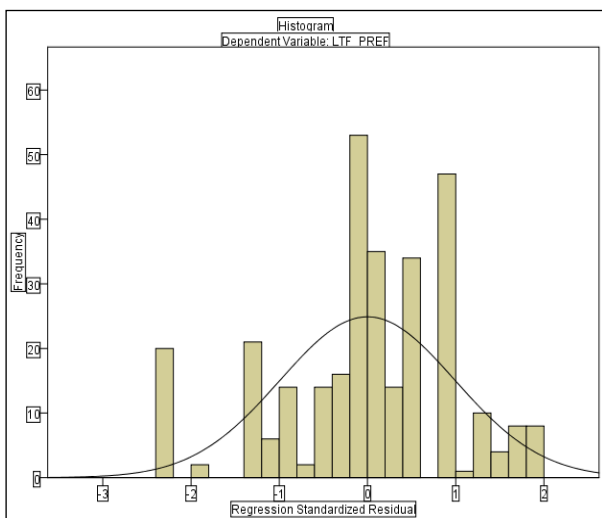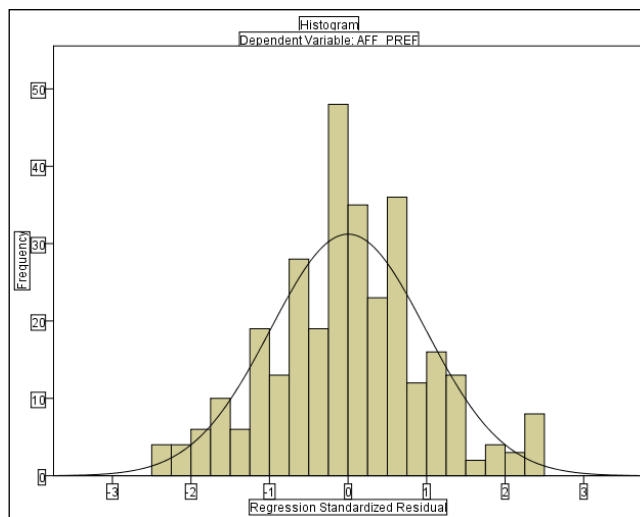
P-P PLOTS FOR RESIDUALS
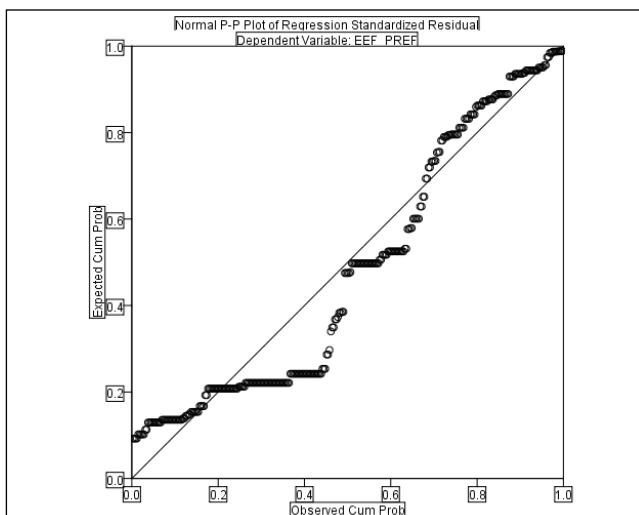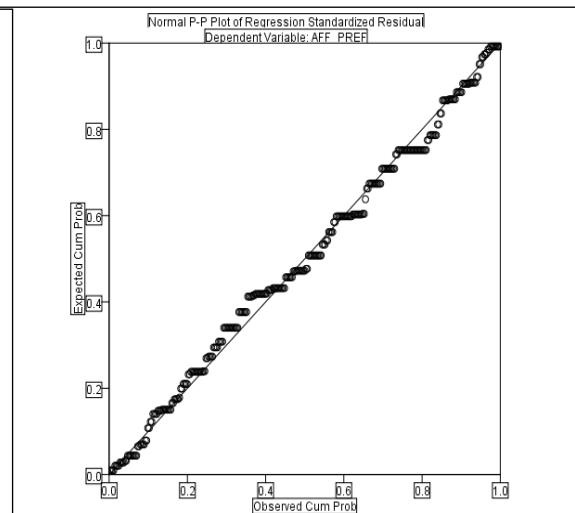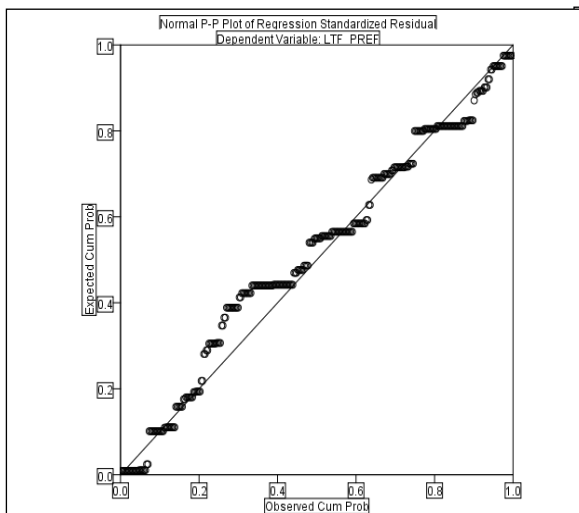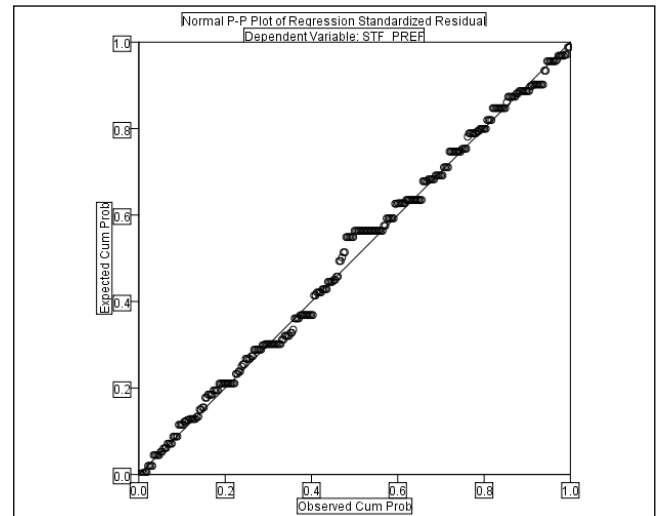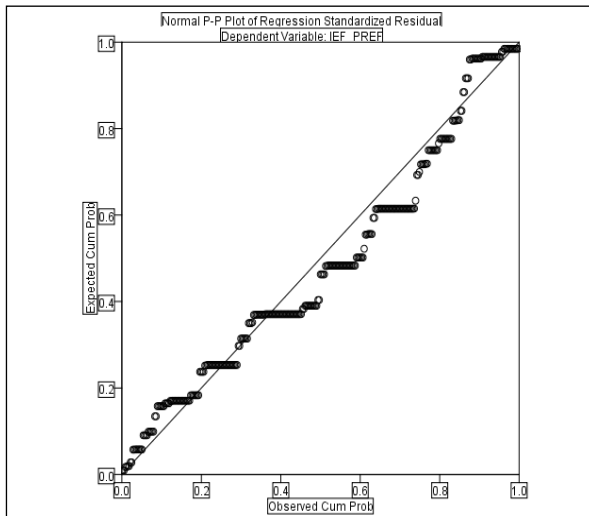
SCATTER PLOT OF RESIDUALS
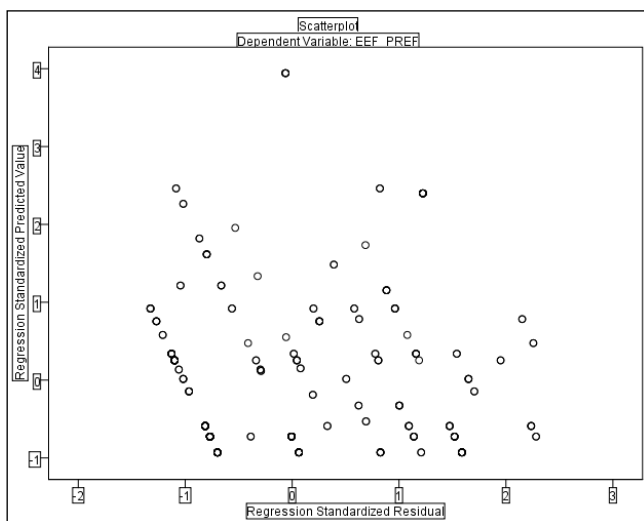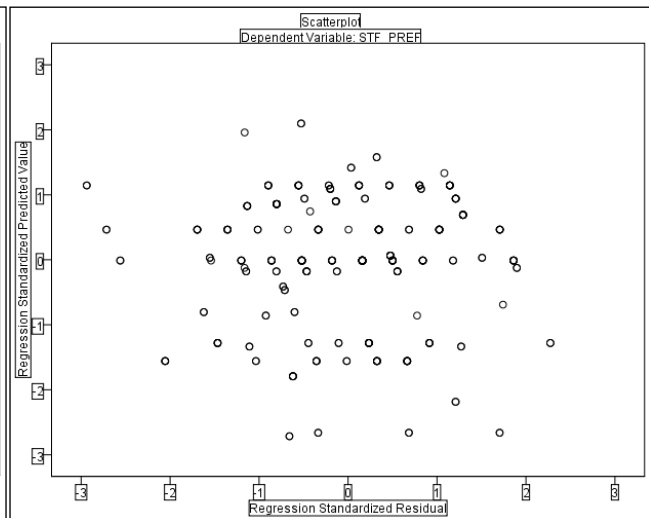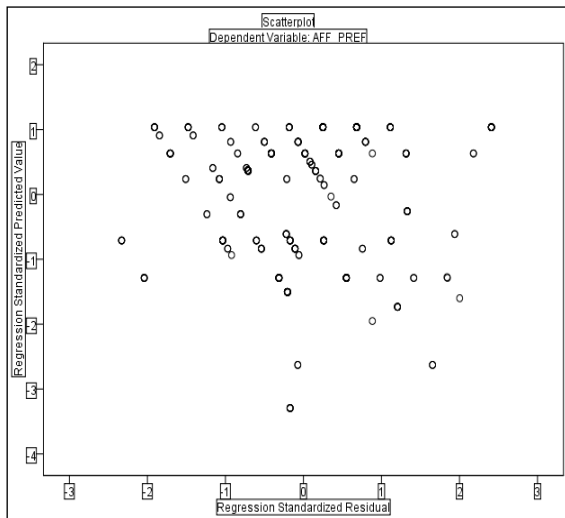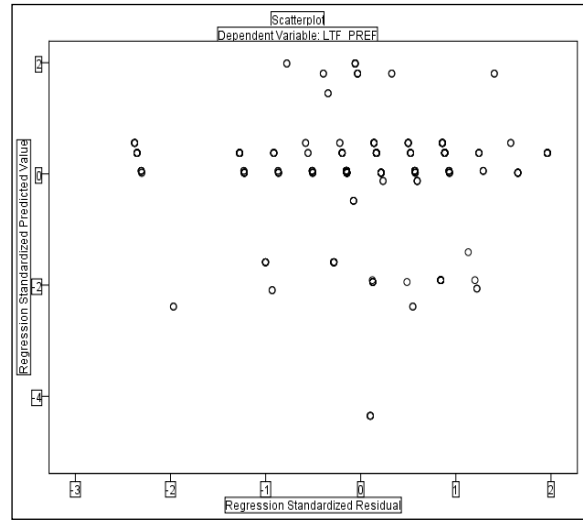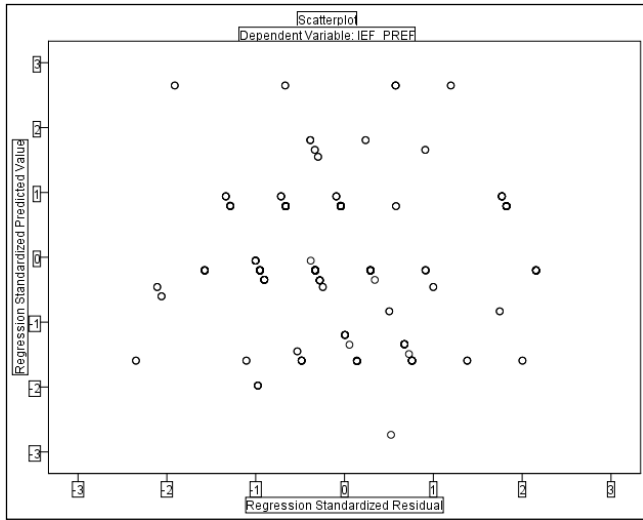
REGRESSION RESULTS STAGE 1

STAGE 1 - REGRESSION RESULTS

The results are presented in three tables for each dependent variable (IEF_PREF,STF_PREF,LTF_PREF,OFF_PREF,EEF_PREF) . The table exhibits the model summary for all the independent variables entered through hierarchical method for each dependent variable. The models are chosen for the next stage of analysis on the basis of value of R square and F statistics for each model.

The chosen models are highlighted in the table presenting the results of ANOVA. It thereby leads to the selection of significant explanatory variables for stepwise regression applied in stage 2 which are marked in the subsequent table depicting the regression coefficients for independent variables.

A Dependent Variable –IEF_PREF; Independent Variables-Owner/Manager's Attributes

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Table A.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.188	0.035	0.032	.55086	
2	0.273	0.074	0.065	.54136	
3	0.299	0.090	0.075	.53863	
4	0.320	0.102	0.084	.53578	1.567
5	0.322	0.104	0.083	.53618	

Table A.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	p value
1	Regression	3.412	1	3.412	11.243	*.001**
	Residual	93.158	307	.303		
	Total	96.570	308			
2	Regression	7.183	3	2.394	8.170	*.000**
	Residual	89.387	305	.293		
	Total	96.570	308			
3	Regression	8.661	5	1.732	5.970	*.000**
	Residual	87.909	303	.290		
	Total	96.570	308			
4	Regression	9.877	6	1.646	5.735	*.000**
	Residual	86.693	302	.287		
	Total	96.570	308			
5	Regression	10.036	7	1.434	4.987	*.000**
	Residual	86.534	301	.287		
	Total	96.570	308			

indicates significance level at 0.01 significance level; df = degree of freedom

Table A.3 Regression Coefficients –IEF_PREF

Model		Un-standardized Coefficients		t	p value	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	3.459	.041	84.468	*.000**		
	Edu 2	**.213**	**.064**	**3.353**	**.001***	**1.000**	**1.000**
2	(Constant)	3.863	.129	29.921	*.000**		
	Edu 2	.161	.067	2.397	*.017***	.872	1.147
	Age 1	-.507	.142	-3.578	*.000**	.255	3.926
	Age 2	-.372	.130	-2.872	*.004**	.265	3.770
3	(Constant)	3.863	.130	29.757	*.000**		
	Edu 2	.168	.067	2.504	*.013***	.862	1.161
	Age 1	-.388	.155	-2.506	*.013***	.211	4.729
	Age 2	-.361	.129	-2.792	*.006**	.264	3.784
	Exp1	-.228	.109	-2.086	*.038***	.578	1.730
	Exp2	-.007	.042	-.162	*.871*	.747	1.339
4	(Constant)	3.652	.165	22.148	*.000**		
	Edu2	.179	.067	2.671	*.008**	.856	1.168
	Age1	-.356	.155	-2.298	*.022**	.209	4.778
	Age 2	-.337	.129	-2.612	*.009**	.262	3.815
	Exp1	-.211	.109	-1.932	*.054*	.575	1.740
	Exp2	.010	.043	.244	*.807*	.718	1.392
	Gender	.196	.095	2.058	*.040***	.927	1.079
5	(Constant)	3.777	.236	16.023	*.000*		
	Edu2	**.179**	**.067**	**2.675**	**.008***	**.856**	**1.168**
	Age1	**-.362**	**.155**	**-2.332**	**.020***	**.209**	**4.791**
	Age 2	**-.336**	**.129**	**-2.600**	**.010***	**.262**	**3.815**
	Exp1	**-.225**	**.111**	**-2.029**	**.043**	**.558**	**1.793**
	Exp2	.014	.043	.317	*.752*	.711	1.406
	Gender	**.207**	**.096**	**2.142**	**.033***	**.907**	**1.102**
	Ownership	-.137	.185	-.743	*.458*	.870	1.150

*,**indicate significance level at 0.01 and 0.05 significance level respectively*

B Dependent Variable –STF_PREF; Independent Variables-Owner/Manager's attributes

Table B.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.235	.055	.049	.74506	
2	.279	.078	.066	.73852	
3	.286	.082	.063	.73939	
4	.303	.092	.070	.73663	
5	.314	.098	.074	.73509	1.897

Table B.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	p value
1	Regression	9.933	2	4.967	8.947	*.000**
	Residual	169.863	306	.555		
	Total	179.797	308			
2	Regression	13.992	4	3.498	6.413	*.000**
	Residual	165.805	304	.545		
	Total	179.797	308			
3	Regression	14.694	6	2.449	4.480	*.000**
	Residual	165.102	302	.547		
	Total	179.797	308			
4	Regression	16.469	7	2.353	4.336	*.000**
	Residual	163.328	301	.543		
	Total	179.797	308			
5	Regression	17.689	8	2.211	4.092	*.000**
	Residual	162.107	300	.540		
	Total	179.797	308			

indicates significance level at 0.01 significance level; df=degree of freedom

Table B.3 Regression Coefficients for STF_PREF

Model		Un-standardized Coefficients		t	p value	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	3.016	.054	55.503	*.000**		
	Exp1	**-.476**	**.119**	**-4.015**	***.000***	**.942**	**1.061**
	Exp2	**-.117**	**.052**	**-2.257**	***.025****	**.942**	**1.061**
2	(Constant)	3.198	.090	35.666	*.000**		
	Exp1	-.585	.126	-4.627	*.000**	.815	1.227
	Exp2	-.139	.052	-2.645	*.009**	.909	1.100
	Edu 1	-.183	.120	-1.523	*.129*	.703	1.423
	Edu 2	-.274	.100	-2.723	*.007**	.721	1.388
3	(Constant)	3.376	.185	18.251	*.000**		
	Exp1	-.575	.150	-3.824	*.000**	.576	1.735
	Exp2	-.140	.058	-2.420	*.016***	.747	1.339
	Edu 1	-.165	.132	-1.252	*.212*	.586	1.707
	Edu 2	-.266	.115	-2.314	*.021***	.551	1.816
	Age 1	-.186	.215	-.866	*.387*	.206	4.851
	Age 2	-.203	.179	-1.132	*.259*	.259	3.862
4	(Constant)	3.633	.233	15.612	*.000**		
	Exp1	-.596	.150	-3.968	*.000**	.573	1.746
	Exp2	-.161	.059	-2.737	*.007**	.718	1.393
	Edu 1	-.170	.131	-1.296	*.196*	.586	1.707
	Edu 2	-.282	.115	-2.454	*.015***	.548	1.826
	Age 1	-.227	.215	-1.051	*.294*	.204	4.904
	Age 2	-.230	.179	-1.286	*.199*	.257	3.890
	Gender	-.237	.131	-1.808	*.072*	.926	1.080
5	(Constant)	3.977	.326	12.195	*.000**		
	Exp1	**-.635**	**.152**	**-4.173**	***.000***	**.557**	**1.797**
	Exp2	**-.152**	**.059**	**-2.581**	***.010***	**.711**	**1.406**
	Edu 1	-.163	.131	-1.242	*.215*	.585	1.710
	Edu 2	**-.277**	**.115**	**-2.414**	***.016****	**.547**	**1.828**
	Age 1	-.241	.215	-1.121	*.263*	.204	4.914
	Age 2	-.228	.179	-1.277	*.203*	.257	3.890
	Gender	-.208	.132	-1.574	*.116*	.907	1.103
	Ownership	-.381	.254	-1.503	*.134*	.869	1.151

*,**indicate significance level at 0.01 and 0.05 significance level respectively*

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C Dependent Variable –LTF_PREF; Independent Variables-Owner/Manager's attributes

Table C.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.107	.011	.008	.92316	
2	.109	.012	.002	.92595	
3	.126	.016	.000	.92717	
4	.139	.019	.000	.92712	1.345

Table C.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	p value
1	Regression	3.038	1	3.038	3.565	*.060****
	Residual	261.633	307	.852		
	Total	264.671	308			
2	Regression	3.168	3	1.056	1.232	*.298*
	Residual	261.503	305	.857		
	Total	264.671	308			
3	Regression	4.202	5	.840	.978	*.432*
	Residual	260.469	303	.860		
	Total	264.671	308			
4	Regression	5.084	6	.847	.986	*.435*
	Residual	259.587	302	.860		
	Total	264.671	308			

***indicates significance level at 0.10; df =degree of freedom

Table C.3 Regression Coefficients for LTF_PREF

Model		Un-standardized Coefficients		t	p value	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	2.872	.148	19.427	*.000**		
	Gender	**.299**	**.158**	**1.888**	***.060******	**1.000**	**1.000**
2	(Constant)	2.861	.163	17.538	*.000*		
	Gender	.302	.159	1.899	*.058*	.996	1.004
	Edu 1	-.020	.142	-.143	*.887*	.794	1.259
	Edu 2	.031	.120	.259	*.796*	.797	1.255
3	(Constant)	3.111	.286	10.897	*.000**		
	Gender	.273	.162	1.685	*.093*	.963	1.038
	Edu 1	-.060	.165	-.364	*.716*	.589	1.699
	Edu 2	-.018	.144	-.123	*.902*	.551	1.816
	Age 1	-.274	.250	-1.095	*.274*	.239	4.181
	Age 2	-.186	.225	-.827	*.409*	.259	3.865
4	(Constant)	2.822	.404	6.987	*.000**		
	Gender	.253	.163	1.549	*.122*	.949	1.054
	Edu 1	-.069	.165	-.417	*.677*	.587	1.704
	Edu 2	-.023	.144	-.161	*.872*	.550	1.818
	Age 1	-.248	.252	-.986	*.325*	.237	4.225
	Age 2	-.184	.225	-.817	*.415*	.259	3.865
	Ownership	.314	.309	1.013	*.312*	.928	1.078

*,** *indicate significance level at 0.01 and 0.10 significance level respectively

D Dependent Variable –OFF_PREF; Independent Variables-Owner/Manager's attributes

Table D.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.401	.161	.156	.58874	
2	.412	.170	.159	.58751	
3	.429	.184	.170	.58356	
4	.445	.198	.182	.57949	
5	.453	.205	.184	.57884	1.789

Table D.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	p value
1	Regression	20.376	2	10.188	29.392	*.000**
	Residual	106.064	306	.347		
	Total	126.440	308			
2	Regression	21.507	4	5.377	15.577	*.000**
	Residual	104.932	304	.345		
	Total	126.440	308			
3	Regression	23.255	5	4.651	13.657	*.000**
	Residual	103.185	303	.341		
	Total	126.440	308			
4	Regression	25.025	6	4.171	12.420	*.000**
	Residual	101.414	302	.336		
	Total	126.440	308			
5	Regression	25.922	8	3.240	9.671	*.000**
	Residual	100.518	300	.335		
	Total	126.440	308			

*indicates significance level at 0.01 significance level; df =degree of freedom

Table D.3 Regression Coefficients for OFF_PREF

Model		Un-standardized Coefficients		t	p value	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	2.217	.056	39.843	*.000**		
	Edu 1	**.483**	**.090**	**5.358**	***.000***	**.797**	**1.255**
	Edu 2	**.557**	**.076**	**7.311**	***.000***	**.797**	**1.255**
2	(Constant)	2.107	.146	14.466	*.000**		
	Edu 1	.404	.105	3.862	*.000**	.589	1.698
	Edu 2	.490	.091	5.387	*.000**	.555	1.800
	Age 1	.065	.157	.417	*.677*	.245	4.075
	Age 2	.200	.142	1.407	*.160*	.260	3.844
3	(Constant)	1.866	.180	10.383	*.000**		
	Edu 1	.410	.104	3.946	*.000**	.589	1.699
	Edu 2	.510	.091	5.610	*.000**	.551	1.816
	Age 1	.122	.158	.776	*.438*	.239	4.181
	Age 2	.224	.141	1.581	*.115*	.259	3.865
	Gender	.231	.102	2.265	*.024***	.963	1.038

4	(Constant)	1.456	.252	5.767	*.000**		
	Edu 1	.397	.103	3.846	*.000**	.587	1.704
	Edu 2	.502	.090	5.560	*.000**	.550	1.818
	Age 1	.159	.157	1.010	*.313*	.237	4.225
	Age 2	.227	.140	1.616	*.107*	.259	3.865
	Gender	.202	.102	1.983	*.048***	.949	1.054
	Ownership	.444	.193	2.296	*.022***	.928	1.078
5	(Constant)	1.535	.257	5.978	*.000**		
	Edu 1	**.389**	**.103**	**3.766**	***.000***	**.585**	**1.710**
	Edu 2	**.506**	**.090**	**5.604**	***.000***	**.547**	**1.828**
	Age 1	.260	.169	1.535	*.126*	.204	4.914
	Age 2	.232	.141	1.646	*.101*	.257	3.890
	Gender	**.193**	**.104**	**1.854**	***.065****	**.907**	**1.103**
	Ownership	**.389**	**.200**	**1.950**	***.052****	**.869**	**1.151**
	Exp 1	-.196	.120	-1.636	*.103*	.557	1.797
	Exp 2	-.033	.046	-.706	*.481*	.711	1.406

*,**,***indicates significance level at 0.01,0.05 and 0.10 significance level respectively

E Dependent Variable –EEF_PREF; Independent Variables-Owner/Manager's attribute

Table E.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.194	.038	.031	.89786	
2	.278	.077	.068	.88076	
3	.298	.089	.077	.87669	
4	.323	.104	.086	.87210	
5	.325	.105	.081	.87438	1.836

Table E.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	p value
1	Regression	9.688	2	4.844	6.009	*.003**
	Residual	246.681	306	.806		
	Total	256.369	308			
2	Regression	19.769	3	6.590	8.495	*.000**
	Residual	236.600	305	.776		
	Total	256.369	308			
3	Regression	22.721	4	5.680	7.390	*.000**
	Residual	233.648	304	.769		
	Total	256.369	308			
4	Regression	26.681	6	4.447	5.847	*.000**
	Residual	229.688	302	.761		
	Total	256.369	308			
5	Regression	27.008	8	3.376	4.416	*.000**
	Residual	229.361	300	.765		
	Total	256.369	308			

*indicates significance level at 0.01 significance level; df =degree of freedom

Table E.3 Regression Coefficients of EEF_PREF

Model		Un-standardized Coefficients		t	p value	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	1.982	.206	9.624	*.000**		
	Age 1	.202	.230	.876	*.382*	.265	3.770
	Age 2	-.210	.215	-.976	*.330*	.265	3.770
2	(Constant)	2.534	.253	9.998	*.000**		
	Age 1	.086	.228	.375	*.708*	.260	3.847
	Gender	**-.551**	**.153**	**-3.605**	***.000***	**.973**	**1.028**
	Age 2	-.269	.211	-1.273	*.204*	.264	3.793
3	(Constant)	3.070	.372	8.249	*.000**		
	Age 1	.033	.229	.144	*.885*	.256	3.901
	Gender	-.515	.153	-3.359	*.001**	.959	1.043
	Ownership	-.573	.292	-1.960	*.050***	.931	1.074
	Age 2	-.271	.211	-1.285	*.200*	.264	3.793
4	(Constant)	2.998	.378	7.931	*.000**		
	Age 1	-.068	.246	-.277	*.782*	.220	4.550
	Gender	-.437	.156	-2.796	*.005**	.913	1.095
	Ownership	-.661	.301	-2.199	*.029***	.870	1.150
	Exp1	.125	.180	.696	*.487*	.561	1.783
	Exp 2	.158	.070	2.264	*.024***	.716	1.397
	Age 2	-.239	.210	-1.136	*.257*	.262	3.815
5	(Constant)	3.024	.388	7.796	*.000**		
	Age 1	-.088	.256	-.342	*.732*	.204	4.914
	Gender	**-.439**	**.157**	**-2.788**	***.006***	**.907**	**1.103**
	Ownership	**-.654**	**.302**	**-2.169**	***.031****	**.869**	**1.151**
	Exp1	.118	.181	.652	*.515*	.557	1.797
	Exp 2	**.158**	**.070**	**2.248**	***.025****	**.711**	**1.406**
	Edu 1	-.101	.156	-.644	*.520*	.585	1.710
	Edu 2	-.040	.137	-.295	*.768*	.547	1.828
	Age 2	-.219	.213	-1.032	*.303*	.257	3.890

indicates significance level at 0.01 and 0.05 significance level respectively

Interview Questions

1. What are the various sources of funds used by firm to finance its existing operations and growth?

2. How frequent your firm deploy external source for financing its operations? (External Sources – Debt, equity, Government funds, etc)

3. Which form of debt is more frequently used by firm?
   Short term Debt or Long Term Debt

4. Does firm pledge any collateral for obtaining debt from banks or other financial institutions?

5. How often firm prefer bank loans for financing their investments?

6. What are most preferable source of finance and least preferable source of finance –among the following?
   Retained profits, Equity, Debt-STD, LTD (Banks, Financial Institutions, Corporate etc), Family, friends, relatives,

7. Does your firm is availing any benefits of Government Schemes for SMEs?

8. How social networking/ support from allies help them in funding their operations or obtaining resources for investment?

9. Does your firm have changed the financing practice from the previous financing practices during last five years? (if yes, what are the major changes)

10. What will be the preferable source of financing for funding future investments?

11. What are the main hurdles faced by your firms in arranging external finance

12. According to your opinion, what can be the possible remedies for making financing easier for firms?

Firm Profile

Name_____   Industry_____   Year   of
Incorporation_____

Manager/Owner's Profile

 Gender_____   Age_____   Education_____   Designation _____Experience in the present organization (years)_____Experience in Previous organization (years)_____