CHAPTER I

INTRODUCTION

Venture Capital is money provided by professionals who invest alongside management in rapidly growing companies. Sun, Intel, Microsoft, Mastek, Satyam Infoway, Rediff, Pizza Corner are some examples of successful ventures. Venture Capital derives its value from the brand equity, professional image, constructive criticism, domain knowledge, industry contacts ..., that Venture Capital Funds bring to table at a significantly lower management agency cost. A Venture Capital Fund (VCF) strives to provide entrepreneurs with the support they need to create up-scalable business with sustainable growth, while providing their contributors with outstanding returns on investment, for the higher risks they assume. Venture Capital Funds generally finance new and rapidly growing companies typically knowledge-based, sustainable, upscalable companies; purchase equity/quasi-equity securities; assist in the development of new products or services; add value to the company through active participation; take higher risks with the expectation of higher rewards; have a long-term orientation.

FUNCTION OF VENTURE CAPITAL

Venture capital helps entrepreneurs through the capital-raising process and provides targeted, quality deals to its network of investors. Venture Capital also equips the venture capital community with the tools needed to make the investment process and business development easy and efficient. These tools include a clearinghouse that provides valuable, direct industry connections; a supportive community based on common experiences; the latest market news
across the globe; and access to a high-quality network of professional service providers.

Technological change and development is one of the most important ingredients of economic and social development. The encouragement of the birth and growth of high technology firms is a major factor on which the survival and growth of any economy may depend. Many developed countries realized quite early the role of new technology industries as the key factor in determining the national economic success. They took all the measures to encourage the rate of formation of new firms and their subsequent growth. The essence of any economy is the small and medium enterprises. Several processes cannot be put into commercial operation because of the latent high risk and uncertainty involved in their successful production and marketing. Rational investors normally avoid such investments. In such a situation venture capital financing assumes greater significance. Venture capital financing acts not only as a financial catalyst but also provides a strong impetus for enterprises to develop products involving newer technologies and commercialize them. It is well known from the success stories of a few giant corporations like Digital Equipment Corporation, Apple Computer Inc., Federal Express, Staples Inc., Genetic Institute, etc., that venture capital has played role in their birth and growth. In the last fifteen years, venture capital has emerged as an important area of finance for academic researches.

Since its inception after the Second World War, venture capital has had little known but profound impact on the U.S. and World Economy. It has played a catalytic role in the entrepreneurial process: fundamental value creation that triggers and sustains economic growth and renewal. In terms of job creation, innovative products and services, competitive vibrancy and the dissemination of the entrepreneurial spirit, its contribution has been staggering. The new
companies and industries spawned by venture capitalists have changed the way, in which we live and work. Venture capital has become an increasingly important source of financing for new companies, particularly when such companies are operating on the frontiers of emerging technologies and markets. It is a significant innovation in the twentieth century. It is a form of equity financing especially designed for funding high risk and high return projects. Venture capital implies investment in a project where the uncertainties have yet to be reduced to risks. When many entrepreneurs are with good project ideas but without adequate funds to commercialize them, venture capital can open new avenues for such entrepreneurs. It plays an important role in financing high technology projects and helps to turn research and development into commercial production. Besides financing technology, venture capital is also involved in fostering growth and development of enterprises.

Venture capital means funds invested in small and medium high risk firms which gives a risk of total loss and an opportunity for very high returns that are founded on commercial applications of some technological innovations. These investments are made in new business based on tested technology that is being transferred to new markets. Venture capital investments are categorized by different stages in financing of the firm such as seed capital; start up, expansion and development financing prior to going public.

The concept is basically of U.S. origin where it has achieved a tremendous success. Venture capital can be traced back to four decades when George Doriot, the father of venture capital and Rockefeller family provided finance to companies making use of new technologies. The real development of venture capital took place in 1958 when the Small Business Investment Act was passed by the U.S. Congress to license the companies and provide venture capital, tax incentives and government loans etc. These companies were known
as Small Business Investment Companies [SBICs]. In U. K, it received a boost by way of the Government's Business Expansion Scheme which permitted individuals to claim tax reliefs for investment in companies not listed on the Stock Exchanges. The American experience prompted the Japanese to adopt the concept. Now, Japan is experiencing an entrepreneurial and venture capital boom as a traditionally homogeneous culture attempts to learn what makes innovation work in the U.S. In the eighties, a number of Asian countries established venture capital firms and the Governments have been playing an important role in their development.

Risk capital, in India, has always been in short supply. In order to provide this, Public Financial Institutions have been set up. They have played a catalytic role in the development of industry. Nevertheless they did not venture out on expected lines, but were contended to give debt finance, mostly in the form of term loans to the promoters and their functioning has been akin to that of commercial banks. The first generation entrepreneurs found it difficult to raise equity even to the extent of promoters' contribution to be brought in by them. To partially mitigate the sufferings of such entrepreneurs, All India Financial Institutions came out with novel schemes like seed capital scheme [IDBI], risk capital scheme [IFCI], etc. But the problem of equity finance for new untried enterprises remained unsolved. Further those Indian banks and Financial Institutions have been extending finance based on the principles of safety, security, liquidity and profitability of the assisted units. This has necessitated the setting up of venture capital firms during the later part of the eighties.

The venture capital financing in India began in a small way with the opening up of the Credit Capital Venture Fund [India] Ltd., in 1986 [now known as IL & FS Venture Corporation Ltd] set up by Credit Capital Finance
Corporation Ltd., a premier private sector merchant bank. In public sector, Industrial Credit and Investment Corporation of India and Unit Trust of India jointly set up Technology Development and Information Company Ltd. In 1989 for providing venture finance [now known as ICICI Venture Funds Management Company Limited]. In recent times more number of Venture Capital Companies/Funds have been set up by commercial banks, private sector units, state financial institutions and foreign companies.

**STATEMENT OF THE PROBLEM**

The industrial scenario in India has undergone a considerable change in the last decade or so. From the early days of independence to the late eighties, Indian industry was dependent mainly on imported technology and close-knit families managed a large number of units. The advent of the era of liberalization and influx into the management field of top class technocrats exposed to global environment has changed all these. Recent successes have been of a new class of professionals, who have harnessed their technological abilities to the innovative financing groups and created a whole new world of excellence. The success of many such professionals can be largely attributed to venture capital investments. Though the investments have grown reasonably well, the industry has not reached the divestment stage. Available data shows no significant divestment activity has occurred and therefore it would be difficult to measure the success of the venture capital industry. Several venture capital investments are in unlisted companies and the determination of net asset value for a fund would be extremely difficult. None of the venture capital companies have attempted it.

It is being reported that the venture capital industry is in nascent stage i.e., yet to take off. Some of the reasons cited were the resource crunch and the
resultant low availability of funds for financing risk capital of new technology ventures. The Government's attempt to catalyze formation in risk capital is limited to the tax concessions. Unwillingness on the part of investors to participate is also being cited. Most promoters are obsessed about retaining control and ensuring that the business will pass on to their family. Maximizing the financial efficiency or the return on investment comes next. An Indian entrepreneur is very conservative and often finds expansion of his business as unpleasant affair when it results in the dilution of his holding beyond a certain level. This restricts the growth of investee companies. The exit options available to venture capitalists, especially when relatively small companies have been supported are extremely limited.

The scope of technology shopping in the domestic market was rather limited on account of lack of efforts and facilities in the academic institutions and research laboratories. Inter-linkages among the user and supplier and free mobility of technical ideas for social exploitation or for market needs were absent. Lack of proper legal framework like SBIC Act of USA has affected the venture capital investments. Corporate Laws in India have several provisions that cast a damper on venture capital investments. Section 372 of the Companies Act restricts over-all inter-corporate investments without prior government approval. Further more, there are no provisions in the Companies Act to issue shares to the entrepreneurs at below par value, or for superior performance in the form of 'sweat equity' or offer shares to venture capital companies at a premium without SEBI's intervention.

The recent guidelines issued by SEBI on venture capital were subject to certain criticisms. The two-tier structure recommended for mutual funds has replicated for venture capital funds. This is against the model of venture capital
funds all over the world, which function like a private limited partnership and as single entities, serving both as trustees and fund managers.

A number of defects have also been pointed out by critics in relation to several venture capital companies such as inadequate capital base, insufficient management capacity, fragmentation of efforts over far too many projects without any well thought out strategies and lack of finance for the development of prototypes or setting up of pilot plants at the laboratory stage. Unlike in the case of developed countries, the contributions from insurance companies and pension funds have been very negligible. Such a situation warrants the SEBI and the Government to review the operational performance of venture capital companies and the adequacy of the guidelines in meeting the venture activities.

REVIEW OF LITERATURE

Over a period of time a number of studies on the performance of Venture capital investment have been made by venture capital practitioners, economists, academicians, research and others in India as well as in foreign countries. These studies deal with different areas of venture capital. A survey of these studies will throw light on the distinguishing features and importance of those studies and will pave the way for further investigation. An attempt is made here to critically examine the relevant literature on venture capital and bring out the distinguishing aspects of the present study.

In 1987, a study by Mason, found that the availability of Venture Capital is also highly concentrated within the United Kingdom. The primary investment target is the South East, already the most prosperous region of the

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United Kingdom. Little investment flows into peripheral regions, especially Northern England which lacks its own development agency (like those of Scotland and Wales) to help fill its equity gap. Mason provides two explanations for this concentration that can be generalized to the Venture Capital Markets in other countries as well (1) the problem is the lack of entrepreneurial prospects with good growth potential in peripheral regions. or (2) the problem is the result of historical legacy, perpetuated by regional prejudice lack of awareness of local investment opportunities, or the logistical difficulties of adequately monitoring investments in more distant locations.

In 1986, three salient research streams have been developed by Timmons and Bygrave, the first approach addresses concern for the investment decision making behaviour of Venture Capitalists, the second focuses on the evaluation of the performance of Venture Capital Portfolios, and the third focuses on the availability and cost of Venture Capital.

Zacharakis, Andrew Louis, (1995), in his thesis examines venture capital decision making and develops an actuarial model. Such a model has the potential for improving the investment decision. This thesis uses a real time policy capturing experiment involving 53 VCs from Colorado and the Silicon Valley.

This study reveals that VCs do not have a strong understanding of how they make the decision. VC’s actual decision process is significantly different

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from their believed process. The amount and type of information greatly affects decision accuracy.

In 1985, Macmillan, Siegal and Narasimha, following the study of Tyebjee and Bruno in 1984, carried out a two step study. In an interview of 14 Venture Capitalists they identified twenty seven criteria for evaluating venture investment. Then they grouped these criteria in six groups: entrepreneurs personality, entrepreneur’s experience, product characteristics, market characteristics, financial considerations and composition of venture team, and sent them in the form of a questionnaire to 150 Venture Capital Firms in the USA. They received back 102 responses. Their analysis revealed that out of ten criteria most frequently rated as essential, six related to the personality and experience. The authors factor analysed the criteria to determine generalized patterns underlying these criteria. Their investigation revealed six risk categories likes

a. **Competitive Risk**: A venture, with a proprietary product that has an existing market with little threat of competition, does not have any competitive risk.

b. **Bail out Risk**: A venture belonging to an industry familiar to the venture capitalist and a highly liquid investment provides easy bail out option.

c. **Investment Risk**: A venture run by an entrepreneur with sound track record, in high growth with prospects for 10 times venture in 5-10 years is not much exposed to investment risk.

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d. **Management Risk:** A venture will not have management risk if the entrepreneur is capable of taking sustained efforts, has a thorough knowledge of market and reach well to the risk.

e. **Implementation Risk:** A venture will be insulated from the product and market failure if the entrepreneur has clear cut business plan, has already developed a prototype and the product has a demonstrated market acceptance.

f. **Leadership Risk:** A venture can fail, despite other qualities of the entrepreneur if he lacks the ability to lead others.

A study by Fausnaugh, Carolyn Jane (1995),⁵ on the first four phases of a continuing study into characteristics and other aspects of entrepreneurs that impact new venture performance was conducted from an exploratory stance. The study makes contributions in both methodological and conceptual areas. Methodologically the study demonstrates and documents the impact of different data gathering and data analysis techniques on findings in qualitative research. Conceptually, the research derived a phased systems model of venture capitalists decision making process, a database of concepts at three levels of abstraction about characteristics, and other attributes of entrepreneurs, and a model of new venture funding.

According to AL. Suwailem, Sami,⁶ Venture capital financing is structured to suit environments of high uncertainty and asymmetry of information. This thesis compares 236 small, high-tech companies backed by venture capital with 138 companies of the same size and in the same industries not backed by venture capital, both prior to their public offering. Several


hypothesis are developed to test the accessibility of each group to the capital market as well as the sensitivity of their investment spending to internal funds. The results show that venture-backed firms (1) raise more external finance, (2) pay lower interest rates, and (3) face lower shadow costs of capital than non-venture-backed companies. Further, investment spending of venture-backed companies is found to be less sensitive to cash flow and balance sheet conditions than non-venture backed companies.

Hansen, Pal Berthing, 7 conducted a survey amongst UK venture capital funds to shed some light on liaison and monitoring characteristics, and information on specific investee failures. The results revealed that smaller funds tended to experience higher portfolio failure rates than larger funds, and that investment, style did not have any significant effect upon portfolio failure rates. Intuition played an important part in the monitoring of portfolio companies. A database of 97 failed projects indicated that in effect senior management and market failure were the main causes of failure amongst funded projects.

Three in-depth case studies of venture capital funded failures were conducted. The cases demonstrated the importance of non-financial information in a failure prediction context. The non-financial factors provided an earlier and more stable warning over a time of potential failure.

A study by Thompson, Richard Charles, examines the agency relationship between the VC and entrepreneur. This is not a normative use of agency theory that is, it will not be structured so as to prescribe the appropriate contractual form between principal and agent, but instead recognizes that the contractual form has already been established. It is the effect of this contract on the firm’s performance that is of interest in this research. The major research question is framed within the context of the VC’s two objectives—a relatively quick and high rate of venture and the entrepreneur’s objective of building a strong firm.

Venture capital recipient firms were found to go public at a significantly quicker rate than non-recipient firms. No differences were found between the two groups when examining the three financial performance criteria of profit margin, return on investment and average earnings yield.

Sidharth Sinha (1995), discusses the relationship between risk contracting arrangements and the return to equity and financial structure. The main conclusion that emerges is the need for competitive bidding in the absence of an equity market for ‘infrastructure type projects’. Governments can help reduce the risk and required return on equity investment by creating the appropriate legal and regulatory framework for reducing delays and uncertainties in finalizing and implementing these projects.

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Naresh Kumar (1995),\textsuperscript{10} analyses the concept in general and evaluate the present status and future prospects of the venture capital industry in India. The study has taken into consideration the Government policies and related legal and taxation issues in analyzing venture capital industry. The study concludes that venture capital industry is in its infancy stage. The study suggests that the venture capital industry be made more attractive for corporate and institutional investors and making venture capital more profitable can do this.

The importance of and problems of Indian venture capital investment was pointed out by S.Ramesh and S.K. Maheswari,\textsuperscript{11} in their study on the venture capital – the Indian Scene. This study reveals that the credibility gap between the financier and entrepreneur and the other areas which have scope of improvement are fiscal incentives and disinvestments avenues. The study suggested various measures to be incorporated in existing laws so as to enable government, financial institutions and banks to collaborate in a programme to create an environment, which may give fill up to the growth of venture capital in India. The recommendations include taxation measures and organizational aspects of venture capital companies.

K.J.Taori (2001)\textsuperscript{12} studied the venture capital funding feature of the financial landscape. The study reveals the venture capital process and practices followed in India. The study has taken into consideration of the bankers’ role


in venture capital finance in India. The study suggests that the banks need to develop sophisticated appraisal and market intelligence skills so that lucrative business opportunities are supported through successful participation in the right venture capital activity.

R.C.Sweeting(1991)\textsuperscript{13} discusses the operation of small number of U.K. Venture Capital funds and how their relationship with operating business was developed. The study reveals the venture capital fund activities in U.K. The activities are discussed in five stages i.e. i) Deal Organization ii) Deal Screening iii) Deal emulations iv) Deal structuring and v)post investment activities. His studies are based on secondary data from published statistics, the technical press, venture fund reports and publications by intermediaries, such as accountants. Venture capital funds were selected from British Venture Capital Association Directory of 1987-88. The study suggests that the venture capital industry to change the management. It was a feature of the venture funds that they were prepared to induce management changes, if necessary in business operations. Technology is not a problem- people are and mainly when NTBB’s needs are for startup, findings demonstrate a decline of interest in these types of investments.

Robin Siegel, Eric Siegel and Ian C.Macmillan\textsuperscript{14} conducted a survey of the corporate venture capital community in the United States. This study is based upon responses to a questionnaire completed by 52 corporate venture capitalists, the central question addressed in this study involves which approach


to corporate venture capital is most likely to produce successful results. The study addresses via cluster analysis which segregated the CVC community into two broad classes - “Pilots” and “Copilots”. This study reveals that the corporate venture fund should be established as an independent entity and should have access to a committed separated pool of funds. The fund should be managed by skilled venture professionals who may be drawn from the independent venture community on the small but growing pool experienced CVCS. Corporate venture Capitalist should be treated like independent venture capitalists. Venture proposals failing on financial criteria might be referred to other parts of the corporation with the purpose of exploring an alternate relationship. A corporation should be willing to make a complete commitment of talent and capital if it establishes its own corporate venture fund.

B.Elango, Vance H.Fried, Robert D.Histich and Amy Polonchek, examines the differences between venture capital (VC) firms based upon - venture stage of interest, amount of assistance provided, VC firm size, and geographic region where located. This study compares 149 venture capitalists, provided data about these firms, about what they look for in evaluations and investment, and about how they work with a portfolio company following an investment. The study divides the firms into four groups based on venture stage of interest, three groups based upon the amount of capital they managed. The results show that the venture capital firms (1) Earlier stage investors sought ventures with higher potential, returns - a 42% hurdle rate of return for earliest stage investor versus 33% for the later stage investor (2) The most active group averaged over 35 hours per month per investment, and the least active group averaged less than seven hours. (3) The large firms provided the least, and the medium sized firms provided the most, assistant to portfolio companies. (4)

There were no differences between geographic regions in the proportion of investments where the venture capital firms served as lead investor. There were however, major regional differences in investment stages of interest. Also differences were observed between regions that were not a result of different size and investment stage.

Roger J. Bowden, paper examines the conditions under which bargains can be consummated, the nature of the bargains, and the way in which bargains are both influenced by venture fund size and also contribute to a theory of fund size. The study reveals that the most basic form of contract is a simple bilateral bargain between owners and fund managers, with the shares of financing and earnings as the bargaining variables. The Nash bargaining solution of game theory can also be exhibited within this framework although one has to be careful to remain agnostic about whether or not this constitutes the only or even the best solution.

The study concludes that fund size and bargaining power are related especially where fund investors or managers rely on the fund for portfolio or internal, diversification as opposed to external diversification in which they invest extensively in other assets. For external diversification, fund size is mainly a matter of economics of scale in administration, evaluation and monitoring.

A study by Jay B. Barney, Lowell W. Busentitz, Jameso Fiet and Douglas D. Moesel examines the conditions under which new venture teams are more


or less likely to learn from and value non-financial venture capital assistance. This study examines several attributes of new ventures and their management teams as samples of assisted learning in new ventures. These attributes include (1) the overall pre funding experience of the new ventures’ management team in the new ventures; industry (2) the prefunding tenure of a new ventures’ management team in the current venture (3) how long this management team has worked together in this and other new ventures at the time of the first round funding (4) the level of technological differentiation in the venture and (5) new venture performance. This study concludes that the NVT assessment of both business management and operational assistant were negatively related to the teams experience in the ventures’ industry. The industry experience and the tenure of the team in its current venture are negatively related to the reception of the both the business management advice and operational assistant. The ventures’ performance was not related to the NVT’S assessment of VC involvement. The VC-NVT relationship is an important antecedent of future performance.

Dan Muzyka, Sue Birley and Benoit Leleux,18 investigated the trade off made by venture capitalists in Europe. This study collects seventy three venture capitalists from across Europe through questionnaire. The trade offs were randomized in the questionnaire. But for descriptive purposes, they fall into the following groupings: financial, product-market, strategic-competitive, fund management team, management competence and deal. This study concludes that the venture capitalists interviewed would, as a group, prefer to select an opportunity that offers a good management team and reasonable financial and product – market characteristics, even if the opportunity does not meet the overall fund and deal requirements. It appears, quite logically that without the

correct management team and a reasonable idea good financials are generally meaningless because they will never be achieved. Moreover, there was no relationship to the scale of the fund, the typical round of financing, or the apparent network.

A study of Hollister B.Sykes,\(^{19}\) discusses the corporate venture capital investment strategies for success. This study follows two generic modes of strategic corporate venture capital investment. They are (i) investments managed through an independent venture capital limited partnership (VC1.P) (ii) direct venture capital investment (VC1) in individual ventures. Data on both modes were obtained and analysed in this study. The result shows that corporates should continue to employ venture capital investment as one mode of remaining alert to new opportunities for business development in areas that relate to or could be extensions of this existing business. Use of venture capital to explore entirely new, unrelated business areas also may be of value, but development of effective communication channels and implementation of follow-on strategies will be difficult because it will be more difficult to find areas for mutually beneficial business relationships.

Robert D.Hisrich, A.D.Jankowicz,\(^{20}\) study employs a unique technique – the repertory grid – drawn from personal construct psychology. Using this technique, the ways in which venture capitalists construe (think about or ascribe personal meaning to) investment proposals were identified in a series of in-depth interviews. This study results indicate that investment decision constructs can be grouped into three areas – management, unique opportunity


and appropriate return, the first two areas involving the largest numbers of constructs reflecting such concerns as the experience of the principal, the personality and background of the principal, the characteristics of the management team, the interpersonal Chemistry involved, and a preference for a pragmatic rather than creative entrepreneur. Principal component analyses indicated the relationship between these concerns and reveal relatively low cognitive complexity essentially, just one or two major areas of emphasis predominates in each venture capitalists’ thinking.

Robert H. Rea's paper identifies the relative importance of factors that affect success and failure of negotiations between entrepreneurs and venture capital investors for start up deals. This information should be useful to both entrepreneurs and investors to create the best possible conditions for success. This study reveals size factors that enter into the negotiations. They are market, product, team, risk, time and deal. The study conducts a survey of venture capital organizations to assess the relative importance of these factors in determining the outcome of negotiations. This study concludes that the business aspects of seed capital/start up deals are more important for successful negotiations than the characteristics of the product. Among the business aspects, markets that offer unconstrained opportunities for rapid growth are essential. The product does not always need to be a major advance over others in the market place, and management team need not be completed at the start up stage. The business plan must be credible, and the deal need not be skewed in favor of the investor. The study also reveals that the most important factor for failure of negotiations in credibility – of both the business plan and the management team.

Paola Dubini,\textsuperscript{22} is to determine which entrepreneurial team characteristics are useful in predicting new ventures' performance, given its product and market characteristic. This study conducts based on a sample of 67 venture capitalists; selected from the National volume capital association and venture magazine directories, each of whom was asked ex-post to evaluate at least two ventures, one successful and another unsuccessful. This study evaluates according to the following venture characteristics (1) product characteristics (2) Market Characteristics (3) Entrepreneurial team characteristics. Four performance variables were used in his study. This study indicates that in selecting new venture proposals venture capitalists rely on "objective" parameters to evaluate the team. The entrepreneurs skills and competence are much more important than "gut feelings" or referrals from other sources during the screening process.

Mike Wright, Steve Thompson, Ken Robbie,\textsuperscript{23} examines three aspects of the market for venture and development capital funded management led buy outs in Europe. It provides a framework for analysis of the different levels of development of each country's market, it examines performance of U.K. buy-outs and address the extent and nature of exits. Throughout the paper use is made of the extensive database of European buy outs developed by the authors. The main conclusions to emerge are, the important differences between European Countries in respect of the level of buyout activity and the extent to which conditions are or will be favorable for the development of such transactions. Conceptually, a buyout market may be considered as requiring


three main factors to be present if it is to develop, the generation of buy out opportunities; the infrastructure to complete a transaction; and opportunities for the investors in a buyout to realize their gains. The result of this survey indicates support for both the entrepreneurial and agency cost – reduction perspectives about buyouts with the former perhaps being somewhat more in evidence.

Chishty, Muhammad Rezaul Kaiser,\(^\text{24}\) says that initial public Offerings (IPOs) of common stock have always been one of the riskier investments with very highly potential returns for investors. IPOs are also the traditional way for companies to raise capital for growth and development.

Venture capitalists are very sophisticated investors who provide funds in exchange for a portion of the equity in companies, commonly in high technology or emerging technology areas. The founders of the companies or the entrepreneurs usually have an idea for a product, but no capital, assets, or borrowing ability. The venture capitalist provides them with seed capital, helps them recruit top managers and plan strategy, provides additional capital, in stages in future and eventually takes the company public after a marketable product has been developed. The venture capitalist is a repeat participant in the capital markets and depends a great deal on his reputation to attract future investors and investments.

Initial Public Offering Prospectuses were obtained for 205 venture capital funded companies that went public in the 1978-1989 period. Data obtained from the prospectuses was used to empirically test the signaling model for IPOs developed by Grinblatt and Hwang(1989). All eight hypotheses

\(^{24}\) Chishty, Muhammad Rezaul Kaiser, *A Study of Initial Public Offerings of Venture Capital Funded Companies (Stock Offering)*, Georgia State University, Ph.D., 1991, p.165.
derived from their model were supported by the results of the analyses. The proportion of equity retained by the venture capitalists and the other insiders, and the degree of underpricing signaled the quality of the firm to the outside investors at the time of the IPO.

Mull, Frederick Hobert,25 in his dissertation examines the venture capital industry and develops a theory of venture capital investment. The theory (1) predicts the behaviour of venture capitalists and the types of projects or firms that they prefer to invest in and (2) theoretically explains the underlying reasons for the methods used by venture capitalists to overcome investment barriers and fund the high-risk projects of entrepreneurs. Venture capitalists use their unique characteristics to achieve results from their investment in entrepreneurial projects that are quite different than the results non-venture capital investors attain.

This dissertation develops and finds supporting evidence for seven hypotheses. First, venture capitalists concentrate their investments in different industries than do non-venture capital investors—industries that could be classified as high risk. Second, venture capital backed firms use convertible preferred stock with greater frequency than non-venture capital backed firms. Third, venture capital backed firms have lower levels of total debt than non-venture capital backed firms. Fourth, venture capitalists invest in higher risk projects than non-venture capital investors as measured by earnings per share variability. The fifth hypothesis also finds that venture capitalists invest in riskier projects, but uses research and development expenses as a proxy for risk. Sixth, I find that venture capital backed firms achieve higher growth rates in

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revenues. Seventh, I find that venture capital backed firms also achieve higher total asset growth rates.

Tate, John Robert,\textsuperscript{26} in his study examined the risk and return characteristics of a portfolio of thirty-nine investments made by one of the early small Business Investment Companies (SBIC). These data were then used to test three hypotheses about the venture capital industry. These hypotheses were: (1) the risk/return ratio is higher, the older the investee company is at the time of the initial investment. (2) The risk/return ratio is higher, the younger the venture capital firm is at the time of the initial investment (or conversely, the return/risk ratio rises with time) (3) the risk/return ratio rises as the overall level of venture capital market activity rises.

Data were collected by inspection of the subject SBIC’s internal accounting records. The three hypotheses were tested using bivariate and multivariate regression analysis. In all three cases, the null hypothesis of no differences was rejected. Strongest support for the hypotheses came from multivariate analysis. More than thirty percent of the variance in the risk/return ratio was explained by the independent variables associated with the above hypotheses.

Twenty six (66.7\%) of the thirty nine investments had positive rates of return but sixty two percent of these had returns of less than ten percent. Only six investments produced returns of more than thirty percent per year. The mean return was $-3.4\%$ percent while the median return was 6.88 percent.

Holding periods of the investments ranged as high as 231 months with six being held ten years or more. The average holding period was 75.9 months.

Hypotheses derived from Cooper’s multiperiod and contingent model of venture capital investment were also tested using these data. They were not refuted. Cooper’s model predicts a large number of averages to below average performers and a few high performing outliers. The results of this analysis lend support to Cooper’s hypothesis.

Lim, Joseph,27 in his dissertation is an empirical study of the link between the presence of venture capital and the under pricing of the initial public offerings (IPOs). Venture capitalists are often viewed as value adding financial intermediaries. However, this notion has not been empirically tested.

Through the value adding activities of the venture capitalists, we may view venture backed firms as firms with better prospects compared to non venture backed firms. Our results show that the sample of venture backed IPOs with secondary offerings is more under priced than the sample of non venture backed IPOs. Further, in the aftermarket, the venture backed firm has a larger analyst following and a greater proportion of its shares are held by institutions compared to the non venture backed firms. Also, the results suggest that venture-backed firms come to the market with seasoned equity offerings sooner and for larger amounts.

Bygrave, William D.,28 in his dissertation studied investments of venture capital in portfolio companies, characteristics of the top 61 venture capital firms, influences on the flows of venture capital, and rates of return of venture capital funds. Data-base research was supplemented with field interviews of


venture capitalists. As a result of exploratory work, a resource exchange model (augmented with concepts from population–ecology theory) was developed for the venture capital industry.

The principal findings were as follows (1) after the surge in venture capital investing began in 1978 there was a trend to proportionately more investments in early stage and high tech companies. (2) The top 61 venture capital firms managed more than half the pool of venture capital. At least one of those firms was invested in 73% of the portfolio companies; at least one of the top 21 firms specializing in high technology was invested in 43% of the high tech portfolio companies; and at least one of the top 21 firms specializing in low technology was invested in 43% of the low tech companies. (3) The top 21 high tech specialists formed a tightly connected network. (4) The flow of venture capital appeared to be correlated primarily to the IPO and the NASDAQ market. The correlation with changes in the capital gains tax rate was not significant, possibly because most new venture capital came from tax-exempt institutions. (5) The rates of return of venture capital steadily declined from a peak of more than 30% in 1980 to single digits in 1985.

Reiner, Martha Louise, in his study analyzes the rise of venture investing through specialized organizations and the subsequent evolution of organized venture investing in the United States.

Members of financial community called for “venture capital” and a new institution to manage it just before World War II. The call for venture capital

was both a strategic response to environmental shifts and an ideological response to a perceived crisis of private capitalism in the United States.

The wartime crisis stimulated the development of new technologies and changed institutional arrangements for venturing. As public and private groups planned 'reconversion' to a peacetime economy interest groups agitated for public policy changes to promote diverse venture capital interests. This broad based movement encouraged policy changes that expanded the market for growth stock and build an institutional foundation for venture investing.

The East Coast innovation of creating venture capital organizations just after the war was response to the prewar call to reform and organize venture capital, as well as to post war venture opportunities. The west coast innovation was less conscious, more incremental, more purely a response to abundant postwar venture opportunities. The innovators tended to invest as individuals in loose associations, often as a sideline, yet they developed a distinctive venture investing style.

Enthusiasm about venture capital organizations waned during the 1950s, although more individuals experimented with venture investing. However, the Sputnik crisis in October, 1957 galvanized support for a public venture capital initiative in 1958 – the federally sponsored small business investment company program. By 1960, SBICs and other venture capital organizations were proliferating. Private venture capital organizations were proliferating. Private venture capital partnerships began to supplant the SBICs in the late 1960s partly because leading Eastern venture investors sponsored a new initiative for a private institution.
The 'institutionalization' of venture capital noticed in the 1980s had two contradictory streams. Organized venture investing survived some tough years in the 1970s and by the early 1980s become established as a distinctive practice widely recognized for its contribution to U.S. innovation and growth. Yet as it expanded dramatically in the early 1980s, organized venture investing increasingly mirrored the practices of institutional finance.

McNaughton, Rod.B., in his dissertation investigates the supply and demand components of Canadian venture capital investment. Four areas are addressed: (1) Where venture capital firms and their investments are located (2) investment specialization of firms in different urban markets (3) the spatial patter of portfolio firm industrial sector and funding stage characteristics and (4) the economic impact of portfolio firms. These investigations are based on data gathered from industrial directories, surveys of both venture capitalists and their investments, and an online database of export oriented firms. Venture capital investors are highly concentrated and regionally biased in their portfolio selections. Further, investor's located in particular urban markets specialize in certain geographic regions, funding stages and industrial sectors. The resulting spatial patterns are the aggregate result of efforts to minimize uncertainty and reduce the inherent risk of ventures. Investigation of the performance and economic impacts of venture backed firms showed that venture capitalists usually invest in the elite of small and medium sized companies. These firms typically have above average rates of amounts of capital to research and development activity, and are highly export oriented. As a result of their rapid growth, they generate many new employment opportunities.

30 McNaughton, Rod.B., *An Economic Geography of Venture Capital Investment in Canada*, The University of Western Ontario (Canada), Ph.D., 1989.
Kiethl, Sandra Jean,\textsuperscript{31} says that a sample of two hundred and twenty five high technology startup firms located nationwide provided a base for the analysis of characteristics of start-up success. For comparison purposes, the sample was divided into two groups; (1) those firms which have not received a venture capital infusion from a formal venture capital company and (2) those firms which have received one or more infusions of venture capital. Aspects of organizational climate, top management team approach, marketing strategy and focus, business planning and the intent to go public as a means of addressing future financing needs were examined. The following conclusions are drawn (1) Both the funded and unfunded firms embrace practices which strongly manifest those of an organic organization. The venture capital funded firms have a higher quality top management. (2) Both the venture capital funded and unfunded firms tend to be market driven with a solutions orientation. (4) The high technology start up firm which has received venture capital funding is more likely to go public than the unfunded firm. (5) Business planning is practiced by the majority of all high technology start-up firms, although the funded firms do so to a greater extent.

Warne, F.Katharine\textsuperscript{32} addresses four different aspects of venture capital market in his dissertation. All focus on the role of the venture capitalist as an intermediary who finances entrepreneurial projects. The main topics are: the type of investments; the difference between venture capital and other financial intermediaries; and the effect of the venture capitalist's assistance.

\textsuperscript{31} Kiethl, Sandra Jean, \textit{A Comparative Study of the Characteristics of High Technology Start-up Firms}, Portland State University, Ph.D., 1988, p.190.

Two of the essays develop related principal-agent models of the venture capital process. The other two essays are primarily empirical. ‘Venture Capital Investments’ defines the market for venture capital with an investigation of the types of investments and the availability of capital.

The effect of the capital Gains Tax on Investments in Venture Capital demonstrates that the primary effect of the 1978 reduction in the capital gains tax was a reduction in the rate of return on venture backed companies. This result conflicts with the common view that there was an increase in the proportion of funding commitments provided by investors paying lower tax rates.

Pfeffer, Mary Graves, in his study used protocol analysis to identify key variables in the venture capital investment decision-making process. The study used a fictional business plan which was based on six actual business plans. This fictional business plan was presented to ten venture capitalists who were asked to review it to decide whether to interview the investee.

The protocols obtained from these subjects were analyzed to determine patterns within the subjects’ review. The sections of the business plan which were commonly reviewed first were the deal structure, the executive summary and the management section. The management section was used by the greater number of subjects. The market section was used the greatest number of times.

The data were also organized by type of operators used in each subject’s protocols. Information Search/Retrieval operators were most common, followed by Task Structuring/Set Goal operators.

When classified into the four major categories of task Structuring/Set Goal, Information Acquisition, Analytical/Inferential, and Choice operators, Analytical/Inferential operators were used most frequently. Choice operators were least used.

The results of this study indicate that financial statements provide information important in the venture capital investment decision-making process. This finding is contrary to the advice usually given to potential venture capital investees.

Ross, Margaret Lee Hamel, in his study has two objectives; (1) to determine the overall importance of marketing in a high technology business plan, and (2) to determine which marketing considerations were most important in the decision to invest. The study focused on the attitudes and perceptions of venture capitalists who invest in high technology startup companies. A structured questionnaire and personal interviews were used to collect the data from the sixteen participating venture capitalists. The tools of analysis used to analyze the data were the mean and conjoint analysis.

In terms of the business plan, the venture capitalists indicated that management was the most important factor in the evaluation process.

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followed in descending importance by marketing, research and development, finance and production.

The financial factors were of lower importance because they can be derived from any point in time and are dependent to a large extent on management, marketing, and R & D. Since production in many cases is not immediate, the production factor were given a lower rating.

The sections directly related to the competitive analysis are an analysis of the strengths and weaknesses of the competition, a statement of the recognized need for the product or service a comparison of pricing strategies to their competitors, and a comparison of products to their competitors. The sections directly related to the sales and distribution strategy include a description of the sales strategy and a comparison of distribution to their competition.

Competitive advantage can be derived from any of the above subject areas. Long term market share potential is indirectly related to the competitive analysis and the sales and distribution strategy. Long term market share potential is more the result of these functions’ successful efforts and also rated as an important subsection.

The review of past research studies shows that the issues and approaches are varied and complex. The experience of Venture Capital Firms differ across countries. In India, Venture Capital Financial Service was made its presence in recent times. There is no comprehensive study on their functioning and performance. Therefore the present study focuses on assisted companies through which a better view of Venture Capital Financial Services can be obtained.
Most of the studies have analysed only one or some parts of the venture capital performance. In other words, these studies have not evaluated the performance of the venture capital aided companies and the management participation in the aided companies, no study has been done so far on the performance evaluation side of the venture capital aided companies in India. Hence the present study attempts to find out the performance of venture capital aided companies and how and to what extent the investors help the units to survive and grow in the competitive market.

OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To study and evaluate the growth, development and investment pattern of venture capital companies/funds in India.

2. To analyse the performance of the selected venture capital companies/funds in India.

3. To analyse the performance of the selected units assisted by the venture capital companies/funds chosen for the study.

4. To examine the nature of relationship between VCCs/VCFs and their assisted units.

5. To offer suggestions for improving the venture capital activities in India.
METHODOLOGY

The present study is both empirical and analytical in nature. The study depends on both the primary as well as secondary sources of data. The primary data were collected through a well structured questionnaire and was supplemented with information obtained through personal interviews with a few experts and executives of VCCs. However, all relevant published information were collected. The investment activity reports of the Indian venture capital association was the main secondary source of information for the study. In addition the information collected from the annual reports of venture capital companies/funds, journals, books, other reports and web sites also formed part of the secondary data.

STUDY AREA

The study was conducted in 5 Industrial Cities of India. The cities selected are New Delhi, Mumbai, Hyderabad, Bangalore and Chennai. The selection of 5 cities is justified on the following grounds:

1. They are major industrial cities that are growing rapidly.
2. They have a large number of venture capital corporate offices
3. They have a large number of venture capital assisted companies.
4. New business enterprises like software development, IT sector are in these cities. Therefore these 5 cities are chosen for the study

SAMPLE FOR THE STUDY

The study covers, all the 21 venture capital companies/funds who are members of the Indian venture capital association for overall analysis. The questionnaires were issued to all top management cadre of 21 companies but 9
filled in questionnaires were received. A scrutiny of these questionnaires led to rejection of 2 questionnaires on account of incomplete information as well as lack of information relating to their assisted units.

The Venture Capital Funds/Companies are generally classified into 5 categories. They are:

1. All India Financial Institutions sponsored venture capital companies/funds.
2. State level Financial Institutions sponsored venture capital companies/funds
3. Banks sponsored venture capital companies/funds
4. Private Sector sponsored venture capital companies/funds
5. Foreign Institutional Investors sponsored venture capital companies/funds

Only 7 companies responded to the questionnaires out of 21 VCF/VCCs. These 7 companies fall under the first 4 categories of VCI's and they are located in the five cities mentioned earlier.

TABLE 1.1
VENTURE CAPITAL COMPANIES STUDIED

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the selected Companies/Funds</th>
<th>Location</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IFCI Venture Capital Fund Ltd.</td>
<td>New Delhi</td>
<td>All India Financial Institution</td>
</tr>
<tr>
<td>2</td>
<td>ICICI Venture Funds Management Co. Ltd.</td>
<td>Bangalore</td>
<td>All India Financial Institution</td>
</tr>
<tr>
<td>3</td>
<td>IDBI Venture Capital Divisions</td>
<td>Mumbai</td>
<td>All India Financial Institution</td>
</tr>
<tr>
<td>4</td>
<td>APIDC Venture Capital Ltd.</td>
<td>Hyderabad</td>
<td>State Level Financial Institution</td>
</tr>
<tr>
<td>5</td>
<td>IL &amp; FS Venture Capital Fund Ltd.</td>
<td>Bangalore</td>
<td>Private Sector</td>
</tr>
<tr>
<td>6</td>
<td>Canbank Venture Capital Ltd.</td>
<td>Bangalore</td>
<td>Commercial Bank</td>
</tr>
<tr>
<td>7</td>
<td>Industries Venture Capital Ltd.</td>
<td>Chennai</td>
<td>Private Sector</td>
</tr>
</tbody>
</table>
Out of the 550 units assisted by the 7 VCFs, a sample of 120 units are chosen for the study. Only for these 120 units details relating to their address, location are provided by the 7 VCFs. So all the 120 units whose addresses are made available by the VCFs are contacted through questionnaires.

Out of these 120 units only 42 units responded. The details of units studied are given in the Table 1.2

**TABLE 1.2**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the selected Companies/Funds</th>
<th>Total No. of Units assisted</th>
<th>No. of units selected</th>
<th>No. of units studied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IFCI Venture Capital Fund Ltd.</td>
<td>59</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>ICICI Venture Funds Management Co. Ltd.</td>
<td>277</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>IDBI Venture Capital Divisions</td>
<td>116</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>APIDC Venture Capital Ltd.</td>
<td>27</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>IL &amp; FS Venture Capital Fund Ltd.</td>
<td>17</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Canbank Venture Capital Ltd.</td>
<td>48</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Industries Venture Capital Ltd.</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>550</strong></td>
<td><strong>120</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

A scrutiny of the 42 questionnaires led to rejection of 6 questionnaires on account of incomplete responses. Thus, the responses of 36 assisted units belonging to the 7 companies were used for the present study.

Most of the questionnaires were personally administered. The questionnaires were distributed on one day and collected later on. A few were...
distributed and collected through mail. This enabled the promoters and executives to spend time and show care in providing useful and meaningful data and information.

**QUESTIONNAIRE DESIGN**

Two questionnaires were developed and finalized, one questionnaire to ascertain the venture capital investors and another to evaluate the venture capital investees (assisted companies) performance.

The questionnaire for VCFs consists 4 sections to ascertain data on the venture capital promoters activities, venture capital fund activities, the assisted units and government guidelines and legal requirements.

The questionnaire for assisted units was developed and finalized with 4 sections to ascertain the project performance, fund utilization, profile of the company/unit and the profile of the promoter/executives.

**PILOT STUDY**

A pilot study was conducted with a sample of 4 assisted units from one company. After analyzing the responses of the pilot study, the questionnaire structure was finalized.

**SCORING PATTERN AND CLASSIFICATION**

A scale with 20 statements was constructed to measure the relationship of assisted units with the venture capital firms. The promoters/executives were asked to indicate the extent to which they rate each of the items on a 5 point
scale ranging from “Strongly Disagree (DS)” with a weightage of 1 to “Strongly Agree (SA)” with a weightage of 5. For negative statement the scoring pattern is reversed.

Mean scores are computed variable wise and total scores for each company. The median total score is the basis for classifying units into high scorer and low scorer.

TECHNIQUES OF ANALYSIS

The following statistical techniques were applied in the present study.

First, Chi-square test was applied for examining association between the venture capital investor and venture capital investees.

Second, factor analysis was applied to group the variables for investors relationship. Using the factor scores, cluster analysis was performed to classify the companies on the basis of their relationship with venture capital fund.

Finally, stepwise multiple linear regression was performed relating to some selected variables. i.e., capacity utilization (dependent variable) is associated with form of business, type of business, age wise business classification, technology based business classification, total cost wise business classification, stage of assistance wise business classification, method of assistance wise business classification and method of approach based business classification.
LIMITATIONS OF THE STUDY

The study is subject to a number of limitations.

1. The study covers only 36 units of the 7 companies. The venture capital companies/funds have strong reservations in providing details of their assisted companies.

2. The analysis regarding the exit route could not be covered in detail, because the instrument of the most of the Indian venture capital companies/Funds mature only after 2003 onwards.

3. The study could not cover the performance of all 21 VCCs/VCFs in detail. It covers only 7 companies. Others did not respond inspite of repeated reminders.

4. The study covers 7 companies located in five cities. More companies from more cities would be ideal. However the results of such study may not vary substantially from the present study as these 5 cities represent major centres of venture capital investment activity in India.

5. Adoption of questionnaire method and scaling technique for studying the opinion on relationship has inherent weaknesses. But alternative methodologies are costly, time consuming and difficult to adopt under Indian conditions. Therefore questionnaire method has been chosen.