Chapter Two

The Study:
Objectives, Scope, and Methodology

The discussion in the last chapter provided the backdrop for addressing the research problem regarding the nature of entrepreneurship in the ICT industry in India. Social capital was identified as a useful analytical tool in this context. Given the broad nature of the research problem, any attempt at dealing with it would require the delineation of relevant issues, exploring which would help us in addressing the research problem. With this aim, the present chapter would begin with identification of the objectives of the study. This would be followed by details about the procedure which has been pursued in exploring these issues including the process of collecting and analysing data. The chapter would conclude by outlining the organization of the thesis.

2.1 Objectives of the Study

Keeping in mind the broad research problem set forth in the last chapter, four main objectives are set for the current research

1. Explore the background of entrepreneurs in the ICT industry. ICT is one industry where it is possible to find a large number of entrepreneurs who lack business background in their family/community. It is quite different from the traditional industries where support from community members, particularly family, plays an important role in development of a business venture. Given this uniqueness, exploring the background of ICT entrepreneurs would not only include studying their family/community background but also looking into their geographical location, educational qualification, professional career, demographic details, gender, and the factors motivating them to become entrepreneurs. Such a strategy would facilitate examination of alternative channels of support for entrepreneurs lacking family/community background in business. At the same time, it would also help us in understanding the utility of having a family/community background in business for developing a business venture in a new-technology based industry like ICT.
2. Develop a conceptual understanding of social capital in the context of entrepreneurship. Having decided to use social capital as a sensitizing concept for addressing the current research problem it is necessary to develop an understanding about the concept. The need for such an understanding is crucial considering the diverse interpretation of the concept not only across fields like regional development, organization, and entrepreneurship, but also within each of these fields. Existing literature, discussed in the last chapter, has not succeeded in developing a consensus on the way in which social capital may be conceptualized and operationalized. The current research would facilitate the process of filling up this gap in the literature vis-à-vis entrepreneurship.

3. Examine the importance of social capital in the development of ICT entrepreneurship. Analysis of existing literature shows that social capital facilitates the development of business venture by influencing different aspects of business. However, in the absence of a comparative approach, it is difficult to ascertain from the literature how essential social capital is in ensuring that an enterprise sustains in the market. The current research seeks to fill this gap by attempting to understand the importance of social capital in different aspects related to business operation like identification of business opportunity, getting customers, retaining customers, getting finance, getting office accommodation, getting human resource, and building collaboration. It is expected that such an initiative would help us answer what facilitates only some entrepreneurs in the ICT industry to sustain in market.

4. Study the changes in the utilization of social capital for the development of ICT entrepreneurship. Logically, it is understandable that as relationships keep changing through time their resource value would naturally change. However, existing literature has hardly focussed on the temporality of social capital utilization, thus creating an impression that social capital utilization is rather static. In order to understand the importance of social capital in the development of ICT entrepreneurship, it would be necessary to explore the changes in the utilization of social capital.

2.2 Scope of the Study

Having generated a research problem from a particular empirical context, the scope of the current research is well-defined. The study concentrates on the ICT
industry in India. Considering the reason for selecting the ICT industry, as mentioned in the last chapter, the findings of the current research may also be extended to other new technology-based industries, which share similarity with the ICT industry regarding the process of business development, for example, certain segments of biotechnology and Information Technology Enabled Services industry. It must be said, however, that what is applicable in the case of the ICT industry is not necessarily applicable in traditional industries.

Considering our interest in using social capital as a sensitizing tool for understanding the development of ICT entrepreneurship, the current study highlights the importance of relationship in various areas of business operation. However, while highlighting the influence of relationship on business, the current study also points out how, at times, business develops without the intervention of relationship. Looking at business development in this way helps us in assessing the relative importance of social capital for development of business. For understanding the influence of social capital on business development, the current research primarily looks into social network and trust. Given that we are interested in entrepreneurship only with reference to the process of business development we have chosen not to look at areas involving entrepreneurs/entrepreneurship like personal life of entrepreneurs. Similarly, we have decided to focus on social capital only with reference to entrepreneurship.

Finally, by attempting to understand entrepreneurship through strategies adopted by individual entrepreneurs we choose to focus on founder-driven entrepreneurship as opposed to employee-driven entrepreneurship. For similar reasons, we avoid looking much into interfirm alliances where enterprise becomes more important than individual entrepreneur. All these make the findings of the current study relatively less applicable for corporate entrepreneurship.

2.3 Methodology of the Study

Considering the objectives and the scope of current research, we developed an appropriate methodology. Various issues which required due consideration here included who would become participants of this research, the process of identification of participants, procedure of data collection, mode of data analysis, and research ethics.
2.3.1 Participants

In view of the broad research question and the corresponding specific research objectives, it was quite understandable that the current research required interaction with entrepreneurs in the ICT industry. For the purpose of the current study, we have operationalized entrepreneurs as individuals who have founded a business organization, either a firm or a company, in the ICT industry and are running it at present as its executive head. By such an operationalization, the current study equates entrepreneur with founder of a company or a firm. Our decision to interact with the founder rules out the possibility of considering other individuals as entrepreneurs, for example, those who have inherited a family business or those who have acquired an existing business. The current study also excludes large-scale corporate entrepreneurship where employees play important entrepreneurial role to the extent that the role of the founder is not pervasive in organizational decision-making. This indirectly limits the study to Small and Medium Enterprises (SME). However, concentration on SMEs alone facilitates enrichment of the body of knowledge, as SMEs, given their small size get low focus in the mass media. In comparison, much higher media focus is received by corporate entrepreneurship.

Interacting with founders of organizations who are executive heads at present was crucial. Being involved with all strategic decisions of the organization they were the best persons to talk about the process of development of their enterprises since inception. Besides, the decision to converse with founders was also guided by our interest in exploring the relationship between social capital and entrepreneurship. As founders play key role in the formation and utilization of social capital relevant for the development of an enterprise, they were found to be the most appropriate persons to speak about the development of entrepreneurial social capital over a period of time. Interacting with executive heads of enterprises who inherited or acquired the business could not naturally help us in securing first-hand information about the process of establishment of that business.

After discussing with several experts at the Entrepreneurship Development Institute, Ahmedabad and many entrepreneurs involved in different industries, it was gathered that, on an average, any business organization which survived for three years after its establishment or inception of operation (whichever is later) may be considered as successful in surviving in an industry by facing various business start-up challenges. Given the fast changing nature of the ICT industry, experts felt that an
organization which has survived in this industry for three years has a higher probability of not going to go out of business soon. Therefore, it can be categorized as an organization which has survived in the ICT industry. This argument is also validated by looking into the standards accepted by various venture capital firms in this regard. They consider that on an average it takes three to seven years for any company to generate substantial returns (Html 1). Therefore, any organization which has survived in the ICT industry for three years or more after registration/inception of operation (whichever is later) has a higher possibility of sustaining in business. However, to be on the safer side, it was decided that preferably those entrepreneurs would be selected for the present research, whose venture has been functioning for five years or more.

2.3.2 Identifying Participants

Primary data for the current study was collected from four cities in India where many ICT enterprises are located, namely, Bangalore, Chennai, Mumbai, and Pune. The decision to collect data from four different cities is guided by an interest in exploring whether location is important for shaping the nature of ICT entrepreneurship in India. Such a decision emerges from our familiarity with observations made by past researchers that location has proved to be vital in the rise of ICT clusters in Silicon Valley in the USA (see Saxenian, 2000). The cities were selected keeping in mind their history of entrepreneurship: whereas Bangalore and Pune represented cities that have entered the world economic map with the rise of ICT entrepreneurship there, Chennai and Mumbai represented old business centres which also encouraged the development of new industries like ICT. In fact, Mumbai was the initial centre for the development of ICT industry in India (Heeks, 1996).

Identification of entrepreneurs to become participants for this study was a challenging endeavour. Initially, the idea was to prepare a sampling frame containing a comprehensive list of enterprises in the ICT industry which was to be used for drawing sample entrepreneurs. Keeping that in mind, it appeared pertinent to look for such a list with the Registrar of Companies, Department of Company Affairs, Government of India, as all companies in India irrespective of industry have to register with them. The Department of Company Affairs in association with the National Informatics Centre has published a database of companies registered with them in the form of a CD ROM. This database provides an industry-wise classification of 6.4 lakh companies registered under Indian Companies Act and
provides basic contact details of those companies. In this database there were details of about 23,000 companies which were involved in software services. However, in view of the difficulty of accessing information from this database and considering the missing data, it was finally decided not to use it for constructing a comprehensive database. This database was not useful in any case for developing a comprehensive list of enterprises as it did not include companies operating in India which were registered abroad as well as firms (both partnership and sole proprietorship). Although, on the advice of faculty members at the Indira Gandhi Institute of Development Research, Mumbai and the Indian Institute of Technology (Bombay), Mumbai, we looked for alternative lists like Company Watch and databases developed by Centre for Monitoring Indian Economy, namely, Prowess and First Source, none were comprehensive in nature. We were also advised to look into relevant news magazines like *IT Direct*, *Dataquest*, and *PC Express* for knowing about the enterprises in the ICT industry. However, it was found that they primarily focused on corporate entrepreneurship, which was outside the scope of the current study.

In the absence of availability of any comprehensive list of all ICT enterprises functioning in India, it was decided to collect contact details and enterprise details of as many organizations as possible from multiple sources and draw the sample from them. One source of data was a database called COMPASS. This database provided details of about 1,945 ICT enterprises located in different parts of India. Another database that was used for this research was maintained by <BangaloreIT.in> in their website (www.bangaloreitevent.in). <BangaloreIT.in> is hosted by the Department of Information Technology, Biotechnology and Science and Technology, Government of Karnataka, and Software Technology Parks of India (STPI) (Html 6). From this database we collected details of 1,017 ICT enterprises located in Bangalore. A third database that was used for the study was the list of members available from the website of STPI Chennai, which began its operations in 1995 (Html 7). From this database we collected details of 1,048 member enterprises located in Chennai. The last database that was looked into for this research was the list of members of the Mumbai Chapter of The Indus Entrepreneurs (TiE). Using TiE Mumbai database of Associated Members we drew up a list of 45 ICT entrepreneurs. In addition, we also looked into the list of Charter Members of TiE Mumbai which had details of 61 entrepreneurs from different industries. However, we did not use either of the TiE
lists for directly contacting the entrepreneurs for the current research, as that was the kind of understanding that we got into with TiE Mumbai. Instead, it was agreed upon that, if we find an entrepreneur in the list whom we would like to interview, the request would be routed through TiE. In a way it was beneficial for the research, as reference from TiE was valuable for contacting its members.

Considering that the association with TiE Mumbai was much more than using its membership database for the purpose of current research, it would be pertinent to mention further details about it. TiE, a not-for-profit network of entrepreneurs and professionals, was founded in 1992 in Silicon Valley by a group of successful entrepreneurs, corporate executives, and senior professionals with roots in the Indian subcontinent. Currently, TiE’s mission is to foster entrepreneurship globally through mentoring, networking, and education. At present, TiE has 49 chapters across 11 countries. Each of the TiE offices is called a chapter. TiE has more than 12,000 Associated Members and over 1,800 Charter Members all over the world. Charter Members are the backbone of TiE. A typical profile of a Charter Member is a highly successful entrepreneur and high achiever in an industry, who is ready, able, and willing to invest time and energy in mentoring and sharing knowledge with the TiE ecosystem. Associated Members, on the other hand, are either entrepreneurs or aspiring entrepreneurs and professionals with an interest in entrepreneurship. At the same time, TiE also strongly encourages participation of entrepreneurship enthusiasts as volunteers in activities organized by it (Html 8, 9).

Mumbai chapter of TiE has been in existence since 1999 (Html 10). For the purpose of current research, the researcher associated himself with the activities of this chapter of TiE as a volunteer. In addition to volunteering in the regular activities of TiE Mumbai, he also participated in TiE Entrepreneurial Conference organized by TiE Mumbai during 17-19 December, 2006. One purpose of volunteering was to listen to speakers and participants at various events organized by TiE Mumbai to understand the various issues of concern for the entrepreneurs. Another purpose of volunteering was to build a relationship with participant entrepreneurs in order to explore the possibility of interviewing them for the purpose of the current research. In addition to events organized by TiE Mumbai, another forum in which the researcher participated frequently for the purpose of identifying prospective research participants was the gatherings organized by the Mumbai Entrepreneurship Meetup Group (http://entrepreneur.meetup.com/656/). Leaving aside all the sources mentioned
above, there was one entrepreneur whom we contacted through reference from another entrepreneur whom we interviewed.

2.3.3 Collecting Data

For the purpose of collection of primary data, entrepreneurs were identified from the different sources mentioned above. Out of the total 30 entrepreneurs sampled for current research, eight were contacted personally at different gatherings: six at various TiE events, and two at gatherings organized by the Mumbai Entrepreneurship Meetup Group. While conversing with them we orally enquired about their interest in participating in the current research. Leaving aside these eight entrepreneurs, who were contacted orally, there was one entrepreneur who was contacted over the phone through reference from another entrepreneur whom we interviewed. There were two other entrepreneurs for contacting whom reference was used. They were identified from membership database of TiE Mumbai, but were contacted through TiE Mumbai executives. Rest 19 entrepreneurs were contacted through unreferenced personalized emails which enquired about their interest in participating in the current study. Different sources were used for contacting these entrepreneurs, five through COMPASS database, 10 through database maintained by <BangaloreIT.in>, and four through STPI Chennai membership database. The emails informed them about the source through which we got to know about them and about their enterprise. Along with the email an attachment containing an overview of the current study was sent to enable them to make a decision about participation in the study. In case the entrepreneurs responded to the email, we followed it up either through email or through telephone whichever they preferred. If they agreed to participate in the current research and if they were found suitable for the same, information about the entrepreneur and the enterprise was collected from the website of their enterprise. Later on, while meeting them, brochures containing enterprise profile were collected from the entrepreneurs, wherever available.

Considering the interest in addressing certain conceptual gaps in a specific empirical context, grounded theory (Glaser and Strauss, 1970) appeared to be the most suitable methodology for the current research. Keeping this methodology in mind, theoretical sampling technique was utilized for collection of data where the aim of sampling was to incorporate extensive diversity in data till saturation was reached. In order to bring such diversity it was ensured that selected entrepreneurs were unique in some or other way. Various criteria that were used for bringing in diversity
included age, gender, nature of business activities, and geographical location of the entrepreneur. Variations in the above-mentioned criteria brought corresponding diversity in other areas like entrepreneur’s educational qualification, employment career, family support, friends circle, and motivating factors in becoming an entrepreneur. Details about these variations can be found in Chapter Three and Four.

Entrepreneur was the sampling unit. Data for the present study was collected through the method of case study supported by in-depth personal interview of the entrepreneurs. Considering the pressures on entrepreneurs time, all the interviews had to be completed in one session. The length of interviews varied from 30 to 115 minutes, mostly determined by the time provided by the entrepreneur. On an average, the length of interviews was around 60 minutes. Leaving aside one interview, which took place at a restaurant, all other interviews were conducted at the offices of the entrepreneurs.

Interviews were recorded by use of voice recorder. Knowing that ICT entrepreneurs were extremely comfortable with technological gadgets and considering that the nature of the data which was being collected from the entrepreneurs was not sensitive, voice recording did not appear to affect the quality of data. In addition to voice recording, the researcher also kept a note pad in hand to write down the important points during the interview. Besides, the researcher also wrote field notes afterwards. The interviews were supported by an interview guide and an interview schedule. Both the interview guide and the interview schedule were kept flexible; this permitted us to bring any necessary modification as necessitated by the situation. The interview guide was used for collecting data about the various aspects related to the process of business development as experienced by the entrepreneur. The interview schedule was utilized for collecting data about the socio-cultural background and family background of the entrepreneurs, and about the profile of their enterprises. Data collected through the interview guide was completely qualitative in nature. However, data collected through the interview schedule included both quantitative and qualitative data. Although there was no obvious reason for assuming that entrepreneurs might manipulate reality while presenting it to the researcher, authenticity of the data collected from entrepreneurs was checked by looking into

1 See Appendix One for details
their internal consistency and by comparing information provided by different entrepreneurs.

As it has been mentioned earlier, multiple sources were used for identifying the entrepreneurs suitable for the current research. Using these sources, emails were sent to the entrepreneurs requesting them to participate in the current research. However, the number of entrepreneurs who responded to this request was very low. Because of the problem of non-response to emails, our effort during the initial part of the research to conduct an online survey for collecting basic details about ICT entrepreneurs failed badly. Not all the entrepreneurs who responded to our request for participation were found suitable for this research. Not all the suitable entrepreneurs who agreed to give us an interview appointment actually gave us one. In fact, there were quite a few entrepreneurs who failed to keep their promise due to various reasons. As a result, our ability to bring extensive variation in the sample following the logic of theoretical sampling was limited by the scarcity of available suitable entrepreneurs from whom sample could be drawn. For this reason, it also at times became necessary to relax the criteria for selection of entrepreneurs. Although it was decided to select only those entrepreneurs who had founded an enterprise in the ICT industry and were running it for at least five years, in practice, at times, we found it difficult to follow this criterion completely. This was particularly the case when it came to identifying women ICT entrepreneurs as they were rarely visible. We selected one women entrepreneur, namely, Kirti Harlalka, founder of Knowhow, who was in the Information Technology Enabled Services industry and not the ICT industry. Another women entrepreneur, Sudha Sharma of Design Lab, was yet to register Design Lab as an enterprise. At the time of data collection, she was still operating her business activities as a freelancing consultant. Neither of these women entrepreneurs was in business for five years or more, which was a criterion for inclusion in the study. We included them in the study as we did not have other women entrepreneurs who were completely suitable for the study. However, we felt that bringing gender variation would help us in increasing diversity, the aim of theoretical sampling. At the same time, we selected one male entrepreneur, S. Ram of Integrated Software Solutions, who was not part of the founding team of this enterprise. However, talking to him was considered useful for the current research as he joined

\[1\] See Appendix Two for details about each entrepreneur and enterprises founded by them.
the company immediately after it was formed and during the time of data collection he was part of the entrepreneurial team. We also considered three male entrepreneurs for the current research who were running enterprises that were less than five years old. However, including these entrepreneurs, who were in software product business, was useful considering the scarcity of entrepreneurs developing software products in India and considering the extensive experience they had in business.

2.3.4 Analysing Data

Processing and analysis of data took place immediately after collecting data. After conducting the interview, the voice recording of the interview was transcribed verbatim as early as possible. Data collected with the help of the interview guide was processed using ATLASit software. Data collected using the interview schedule was processed using Microsoft Access software. In Microsoft Access, data about entrepreneurs’ educational qualification, employment career, and family background was organized separately. Similarly, data about clients of enterprises and their office locations was arranged. All the data were interconnected by generating a unique number for each entrepreneur and the enterprise founded by her/him. For analysing data processed through ATLASit, thematic codes were generated keeping the research objectives in mind and quotation of entrepreneurs were classified under these codes. For the purpose of reaching precision in analysis, same quotations were often classified under multiple codes. Other than conducting within case analysis, cross-case analysis was conducted by using the thematic codes. For writing on each issue, quotations under multiple codes were utilized.

2.3.5 Research Ethics

The data that was collected for current research was not in any way sensitive in nature. However, it was felt that maintaining confidentiality would improve the quality of the data. With this consideration in mind, entrepreneurs were informed during the interview that their names, names of their enterprises as well as names of other organizations or individuals mentioned by them would not be disclosed while writing the report. Having made this commitment, pseudonyms were created for all the names available in the data. Only these pseudonyms have been used while writing the report.
2.4 Significance of the Study

Given that the process of development of entrepreneurship has received relatively less attention from researchers in India there is a scarcity of related data. This is particularly true for entrepreneurship in the ICT industry. Within the industry, corporate entrepreneurship has received significant media attention, but little data exists about SME entrepreneurship in this industry. Although there is research exploring the social background of entrepreneurs, few researchers have sought to establish the relationship between entrepreneurs’ social background and their business development. The present research offers some insight on these aspects.

Over a period of time, Sociology of Entrepreneurship and Sociology of Economic Development have emerged as well-developed areas of academic research. In comparison, it is only recently that social capital, as a concept, has started gaining attention in these fields. The current study contributes to these fields by conceptually connecting social capital and entrepreneurship. Existing research shows that social capital has the potential for becoming a useful analytical tool in studying entrepreneurship. However, in order for social capital to become widely applicable, researchers need to arrive at a commonly acceptable definition of the concept, which is hardly present. By exploring diverse interpretations of the concept, the current study attempts to refine the concept of social capital relevant for business entrepreneurship.

Another critical problem with reference to social capital revolves around its measurement. There have been numerous attempts at quantifying social capital. However, the validity of those measurement techniques is questionable. By conceptually understanding social capital with reference to entrepreneurship, the current research has attempted to contribute in this direction by bringing out certain valid parameters for measuring social capital.

Finally, the knowledge gained through the current research would help the entrepreneurial aspirants in developing business by learning from the experience of the fellow entrepreneurs. At the same time, this research would also help the policy makers in facilitating entrepreneurship development by highlighting the challenges faced by entrepreneurs in developing a business in the ICT industry.
2.5 Organization of the Thesis

This thesis has been thematically organized into seven chapters. Chapter One titled ‘Introduction: Social Capital and Business Venture’ develops the research problem by exploring the literature in various relevant areas. The current chapter, Chapter Two titled ‘The Study: Objectives, Scope, and Methodology’ concentrates on various aspects related to the research process. Chapter Three titled ‘The Entrepreneurs’ analyzes the various aspects related to the background of sampled entrepreneurs. Chapter Four titled ‘The Enterprises’ compares the business operation of different enterprises included in this study. Chapter Five titled ‘Business Development: The Role of Social Capital’ explores the process of business development and the role of social capital in it. Chapter Six titled ‘Business Ecosystem: Locating the Role of Social Capital’ examines the various necessities of business development with special reference to social capital. Seventh and the last chapter titled ‘Conclusion: Social Capital and its Role in Entrepreneurship’ addresses the objectives of this research. The chapters are followed by three appendices where we have addressed issues which readers of this report may wish to know about. Appendix One titled ‘Research Instruments’ contains the details of the interview guide and the interview schedule used in this research. Appendix Two titled ‘Entrepreneurship Caselets’ provides a brief account of the entrepreneurs and their enterprise. Finally, Appendix Three titled ‘Genesis and Growth of the ICT Industry in India’ narrates the history of the ICT industry in India and its current status.