CHAPTER III

RESEARCH METHODOLOGY
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This chapter focuses on the ways in which the present study was carried out. This chapter covers various aspects of this research investigation like objectives of the study, hypotheses, sampling, research design, area of study and statistical tools used for analysis.

THEORETICAL FRAMEWORK

The Information Technology professionals in the Chennai city will be studied by utilizing the concepts, methods, theories and data from many disciplines. Whatever the subject orientation forms the study of our selected software professionals is approached, in a larger context, two theoretical frameworks will be emerging in its analysis:

Durkheim’s Systems Theory

To counter the ever present tendency in common sense reasoning towards explaining social activity in terms of individual characteristics, sociologists are often tempted to push their analyses over into what might be called sociologism – an over-emphasis on ‘society’ which implies that societies have an independent and determining existence over and above the people who compose them. Ideas which suggest the primacy of the community over the individual have always existed in social thought and have frequently been propagated by those wishing to persuade people to go along with particular social orders.

This systems approach is derived from the old organic analogy in social thought: the metaphor which views society or enterprise as some kind of organism or
animal which constantly seeks equilibrium or stability and is always fighting off pathological and disintegrative influences.

Durkheim’s message to sociologists was that they should look beyond the individuals who compose society to the level of the underlying patterns of social activity. The institutions, which are part of this pattern, are to be studied not only to locate their ‘genesis’ but to understand their ‘functioning’ - that is the contribution of the parts of the society to the continuation and survival of the whole. The idea of looking at society itself or at industrial organizations as social systems is rooted in the old organic analogy and has come down into contemporary sociology through the work of Durkheim, Pareto and various anthropologists working in the Durkheimian tradition.

**Cultural Reproduction Theory**

One of Pierre Bourdieu and Jean-Claude Passeron main concepts on Cultural Reproduction was in their book *Cultural Reproduction and Social Reproduction*. Bourdieu’s main focus was the structural reproduction of disadvantages and inequalities that are caused by cultural reproduction. According to Bourdieu, inequalities are recycled through the education system and other social institutions. Bourdieu believed that the prosperous and affluent societies of the west were becoming the “cultural capital”. High social class, familiarity with the bourgeois culture and educational credentials determined one’s life chances. It was biased towards those of higher social class and aided in conserving social hierarchies. This system concealed and neglected individual talent and academic meritocracy. Bourdieu demonstrated most of his known theories in his books - *The Inheritors and...*
Reproduction in Education, Culture and Society. Both books established him as a progenitor of “Reproduction theory”.

Through Cultural Reproduction, only those members of the dominant culture can acquire knowledge in relation to the way it is taught from within this cultural system. Therefore, those who are not members of the dominant culture are at a disadvantage to receive cultural information, and therefore will remain at a disadvantage. Capitalist societies depend on a stratified social system, where the working class has an education suited for manual labor: leveling out such inequalities would break down the system. Therefore, schools in capitalist societies require a method of stratification, and often choose to do so in a way in which the dominant culture will not lose its hegemony. One method of maintaining this stratification is through cultural reproduction.

SIGNIFICANCE OF THE STUDY

There have been diverse approaches adopted by the social scientists to understand the nature of socialization and its impact on the individuals. It is difficult to integrate them into one overarching perspective or decide on the one that is most satisfactory. The present study has mainly focused on the vital role of socialization in shaping the career and education orientation of the young adults.

The life career of an individual is influenced to a major extent by the class-family-education cluster of structural factors. The occupations of the individual’s parents are a major indicator of the individual’s probable life chances. This may be seen beyond the individual who compose society to the level of the underlying patterns of social activity. The institutions, which are part of this pattern, are to be studied not only to locate their ‘genesis’ but to understand their ‘functioning’ – that is the contribution of
the parts of the society to the continuation and survival of the whole. This study tries to understand the dynamics behind the rise of a specific occupational group in the light of a general set of factors which has made its' existence possible. It will further reveal the pattern underlying the formation of occupational groups which enhances the understanding of those factors that help and hinder an individual’s entry into this occupational group, in particular.

The social patterns and the processes are an outcome of the efforts of individuals and social groups and a constraint upon the projects which they pursue. This study, in particular helps to inform about existing pattern in the formation of software professionals in IT sector. It brings to light, the possibilities and potential which exist for changing them in the sense that it enables policy makers to move consciously and rationally control those social institutions and structures which can otherwise seem to control them. So it becomes mandatory to understand the problems, dilemmas, rewards and delights which arise in the world of work with reference to IT sector in particular.

Hence, this study enables policy makers to design strategies to meet the labour market requirements of the knowledge economy. By ensuring social inclusion in the world of work, this study helps moving from reactive towards proactive policy making. Further the study helps in maintaining a qualified workforce through improved education and training which is important to get adapted to the knowledge society.

CONCEPTUAL FRAMEWORK FOR THE STUDY

According to Tony J Watson (1980) an individual’s approach to work is influenced by both objective and subjective factors. Objectively, the individual has
certain resources such as cash, skills, knowledge or physique. Subjectively, the
individual has certain motives, interests and satisfaction. Both of these sets of factors
are, in turn, strongly influenced by structural factors. These are, on the one side, the
structural settings of the individual’s family, class, caste and educational background
and on the other side, the occupational structure and the prevailing job market. And
all these factors are interlinked as indicated in the diagram below which is based on
Tony J Watson’s conceptual framework; the structure of opportunities itself acting as
an influence alongside the various non-work influences on the individual’s approach
to work.

Using the evidence of a large amount of interview material collected by
researchers of Leicester University over several years, Ashton and Field (1976) show
how the work situation of the father influences the family situation which, in turn,
gives the child a certain perspective on the occupational world which will later be
entered. However, the mechanism which links the family situation to the entry to work in the individual’s life career is, of course, the education which is received.

**SCOPE OF THE STUDY**

The study has been carried out among the software professionals working for different organizations from start up firms to well established firms and thereby the findings can be generalized for this particular occupational group. Although sample size of the study is 100, earlier studies show (Arora et al., 2001; Nath and Hazra, 2002) that nature of work performed in the Indian software industry is homogeneous across firms, and thus meaningful inferences may be drawn even from a small sample. The study is important as it finds application at the individual, economic and societal level as enumerated below.

This study attempts to understand socialization process especially family's influence on employment and education and describes intervention strategies for practitioners and parents to use in assisting youth in reaching their full educational and employment potential.

**For the individual**

- reduces the extent to which life outcomes are dependent on family background
- ensures that people are more likely to achieve their potential
- can contribute to improved self-esteem and higher levels of life satisfaction and happiness

**For the economy**

- reduces wasted talent and can lead to increased productivity and employment
- improves participation in education and increases size of skilled workforce
- contributes to higher economic growth and standards of living for all
- reduces economic cost of social disengagement (crime, health etc)

**For society**
- is consistent with greater equality of opportunity and promoting social justice
- reduces educational and income inequality and increases sense of community
- improves social cohesion with its concomitant benefits (reduced crime, civic engagement etc)

**OBJECTIVES**

The objective of this study is to understand the nature of the Indian software professionals sociologically. IT sector is one which has developed recently and rapidly with the advancement of highly sophisticated technology. It is something which is not at all connected to the traditional ways of production. Moreover, it is totally a new phenomenon which is ruled by technology and unheard of earlier. As they are serving international community, it is essential to understand the type of education and other factors which make them fit enough to be globally competent. They adapt and adjust to the new environment and they excel in their work and make India proud.

The present work on the Indian software professionals in Chennai city is a descriptive study with the following objectives:

1. To examine the socio-economic background of software professionals
2. To understand the factors that lead to the making of the software professionals
3. To know the background characteristics with which software professionals have entered IT industry
4. To understand the skills and abilities which has made them software professionals

5. To know their way of life as a member of IT industry and their views on economic aspect of life

6. To understand the advantages and disadvantages faced by social groups in the social life of work

**HYPOTHESES**

1. There is no association between educational level of fathers and the educational level of respondents.

2. There is no association between father’s education and place of schooling of respondents.

3. There is no relationship between income of parents and educational status of respondents.

4. There is no association between income of parents and the income of children.

5. There is no association between lengthy working hours and income of respondents.

6. There is no significant difference between male and female with respect to dimensions of socio-economic cultural aspects of software professionals.

7. There is no significant difference between age groups with respect to dimensions of socio-economic cultural aspects of software professionals.

8. There is no significant difference between communities with respect to dimensions of socio-economic cultural aspects of software professionals.

9. There is no significant difference between respondents monthly income with respect to dimensions of socio-economic cultural aspects of software professionals.
VARIABLES STUDIED

Independent Variables related to respondents:

- Age
- Sex
- Parental Education
- Parental Occupation
- Parental Income
- Class
- Caste

Dependent Variables related to respondents:

- Medium of Education in HSC
- Place of Schooling
- Nature of Educational Institution of Graduation
- Highest Educational Qualification
- Occupation
- Income

RESEARCH DESIGN

The research design is descriptive in nature. The term descriptive research is used to represent a broad range of activities that have a common purpose of describing situations or phenomena, as in this case. These descriptions may be necessary for decision-making or to support broader research objectives in the future.
SELECTION OF AREA

Tamil Nadu has always been a front-runner in the industrialization process in India, both in terms of industrial output and also of encouraging various new large-scale projects. The IT industry in Tamil Nadu has lately been performing very well, growing at a higher rate than its competing neighbor states. Tamil Nadu today has the largest number of software professionals in India and also boasts of the largest mainframe computing capacity in the country. Chennai, the state capital, is fast emerging as a prominent development centre for multimedia software applications: Pentafour, a local IT firm, now designs multimedia content for Hollywood animation movies. International software majors like Alcatel, EDS and IBM have offices in Chennai. Domestic software giants like TCS, Infosys and Wipro, too, operate large development centres in Chennai. These companies are currently recruiting on an enormous scale.

A NASSCOM study has rated Chennai as the best location for setting up software projects within India. Besides these leading software companies, there are a number of start up firms with small or medium turn over who are engaged in software business. Thus Chennai city can be taken as a fertile research area to study the socioeconomic background and other aspects of software professionals of the IT industry.

SAMPLING PROCEDURE

Random sampling method was adopted to collect data from software professionals working in large as well as small start up firms in Chennai city. In order to evolve a
meaningful understanding of the present situation of the recruitment process, samples representing both large and small start up software companies were necessary. This will avoid the biasness of projecting the scenario of either large software companies or small start ups. Thus data was collected primarily from a sample of 100 software professionals drawn from three large companies and two start up software firms. Although sample size of the study does not seem to be big enough for generalizations, earlier studies show (Arora et al., 2001; Nath and Hazra, 2002) that nature of work performed in the Indian software industry is homogeneous across firms and thus meaningful inferences may be drawn even from a small sample.

**SOURCES OF DATA**

Though the present study falls broadly in the category of quantitative method, qualitative approach has also been taken into consideration. This has helped in understanding the empirical reality in more flexible way. The study is based on the data collected through both primary and secondary resources. The primary data is collected through the responses to the questionnaire administered to 100 software professionals who work in different IT organizations in the Chennai city. The researcher made personal contacts with the HR managers and software professionals and collected some data.

The secondary source of information is from the books, published articles in newspapers and the Internet. Information on various socio-cultural and economic aspects of the software professionals is available from local newspaper articles, and other published materials in conferences. The primary data was collected through a questionnaire and a survey consisting of approximately 149 questions. Questionnaires were administered to get information on socio economic and cultural
aspects of their life. It contained both open and closed ended questions. Most of the questions were multiple choice questions where a wide range of answers were given as choice to choose from.

**TOOLS OF DATA COLLECTION**

The main tool of the data collection was questionnaire, semi-structured and open ended interviews.

1. Questionnaire will elicit information from the software professionals of the IT sector regarding their personal profile including age, sex, parents’ education, parents’ occupation, parents’ income along with their education related information. Further, the questionnaire brings out the information related to employment, economic, cultural, religious, political aspects and future plans. Apart from the socio economic background of the software professionals, the questionnaire intends to record their views and experience related to various sociological aspects by virtue of being a member of the IT industry or a particular occupational group.

2. Semi-structured interviews were conducted among software professionals to supplement the quantitative data.

3. Open-ended interviews were conducted among HR managers of the firms under study to have a better knowledge of the general nature of the software professionals recruited in their respective IT firms.

**PILOT STUDY**

The researcher undertook the pilot study to ascertain the feasibility of conducting the research. Visits were made to few IT firms within Chennai city which
were not included in the study. The purpose and need of the study had to be explained to the authorities and the software professionals. Suggestions and opinions were obtained from the professionals and these were incorporated in the study. Based on this information, the tools were finalized for data collection.

**PRE-TEST**

The Questionnaires were tried on a small sample of 10 software professionals who are not included in the research study sample. This was useful to strengthen the questionnaire with more reliable and necessary questions as well to understand whether respondents are able to take up the questions as it is intended by the researcher. The final form of the questionnaire was thus determined.

**STATISTICAL TOOLS USED**

The analysis and interpretation of data will be given in the form of tables and also presented in diagrammatic form. Since the data were mostly qualitative in nature, the researcher after tabulating results will use statistical methods of mean, chi square test, and ANOVA and t test.

**ANALYSIS OF DATA**

The data collected will be analysed both qualitatively and quantitatively. The quantitative analysis included both descriptive and inferential statistics. The descriptive statistics included the percentage analysis and inferential analysis using SPSS.
LIMITATIONS OF THE STUDY

As mentioned earlier, Chennai city was selected for the present study on software professionals. And since the city was too big for one researcher to investigate, a sample of 100 software professionals belonging to different organizations were selected again and the research was conducted. The study is conducted among a homogeneous group in terms of the sector and the nature of work they do and therefore, though it is difficult to cover the entire population, still the sample is representative of the universe.

As the study deals with software professionals who have busy working schedule with lengthy working hours, the researcher found it difficult to get the questionnaire filled by the software professionals. This hurdle can be attributed to the time constraint in the nature of work of software professionals who are most of the time hard pressed for time in the completion of projects allotted to them. This is also one of the reasons for small sample size of the study.