CHAPTER IV RESEARCH METHODOLOGY

4.1 INTRODUCTION

The research methodology constitutes the blue print for the data collection, measurement and analysis of data. It is the overall operational pattern or framework, of research that stipulates what information is to be collected from which sources and by what procedure. It includes information regarding the area of study, the sampling procedure and the data analysis tools.

4.2 SELECTION OF STUDY AREA

The area selected for study is the educational hub of India. It is the southern state of Tamilnadu which is the largest supplier of graduates in India. It has the largest number of educational institutions including colleges and Universities. The universities have played a major role in providing quality technical education to students of India and Abroad. They have been the fertile grounds for new thinking as well as suppliers of skilled manpower to the various Industries in India.

Tamilnadu is a large state with as many as 31 districts. Its capital is Chennai, which when compared to other metro cities of India is traditional with cosmopolitan outlook setting in with advent of high industrial growth. The area of study includes Chennai and its adjacent districts including Kanchipuram and Thiruvallur. These three districts together have the highest concentration of colleges and Universities. The sample being the students, the most influential place for any student is the University which offers courses as diverse as Technology, Business, Medical and other Courses in Science and Arts.

Chennai witnesses the highest level of Entrepreneurial activities as both Government and Educational institutions undertake entrepreneurship promotion activities. These activities have evinced the interest of the students across the courses. So, it becomes an ideal place for the study to be undertaken with respect to the students' entrepreneurial intention.

4.3 RESEARCH DESIGN

The research design selected is cross sectional design based on descriptive methodology leading to conclusions. The present study is undertaken to test entrepreneurial intention of the students. The study collected the information through the instrument developed using the appropriate constructs.

4.4 SAMPLE SIZE DETERMINATION

The sample size for students in the present study is determined by using the following formula:

$$\mathbf{N = [t^2 \times p\ (1 - p)] / m^2}$$

n	=	Required Sample Size
t	=	Confidence Level at 95% (standard value of 1.96)
p	=	Response from the Students in Pilot Study
m	=	Margin of Error at 5% (standard value of 0.05)

Step - 1:

$$\mathbf{n = 1.96^2 \times 0.3\ (1 - 0.3) / 0.0025 = 323}$$

Step - 2:

To correct for the difference in the design, the sample size is multiplied by the design effect (**D**). The design effect is generally considered to be **2** for field surveys.

n × D = 323 × 2 = 646. Hence, it is rounded to 650.

Hence, the sample size for the present study is 650.

4.5 SAMPLING PROCEDURE

Among the different districts in Tamil Nadu, the Chennai city and its suburbs including Tiruvallur and Kanchipuram district have the largest concentration of Engineering Colleges and Universities, about 27% of the entire state. The data and information have been collected from the sample size of 650 students in the final year of their course who have been active participants of the entrepreneurship programs and activities during their course of study through pre-tested, structured questionnaire by adopting purposive sampling method. The data and information collected from respondents pertain to the period August 2011 to April 2012.

4.6 DESIGN OF QUESTIONNAIRE

The instrument for research is a questionnaire which is structured and undisguised consisting of following segments:

- Demographic information: including gender, age, birth order, education qualification, academic performance, marital status, native region, education of father, education of mother, occupation of father, occupation of mother, occupation of siblings and monthly family income. These details will give the background profile of the students and help in identifying the level of influence of the demographic features on the students' entrepreneurial intention levels.
- Personal Dimensions included the following aspects Attitude, Desirability, Feasibility, Subjective norms, Role Model, Situational factors, Personal Motivators and entrepreneurial intention based on the review of literature. Each of these dimensions was measured with a set of statements. The researcher has relied heavily on the entrepreneurial intention

measurement instrument developed by Francisco Linan and Yi- Wen Chen in the Development and cross cultural application of a specific instrument to measure entrepreneurial intention and Per Davidsson's Determinants of entrepreneurial intentions. The instruments developed by them have been extensively used by various researchers to measure the entrepreneurial intention across countries. The researcher used the statements for each dimension which were measured on five point Likert scale ranging from strongly agree to strongly disagree.

- Institution Dimension: including Institutional Research, Institutional Support, and Entrepreneurship Education. These dimensions included statements developed by the researcher herself.

Pilot testing is conducted among thirty respondents and appropriate corrections were made in the layout and content for easy readability and comprehension.

4.7 VALIDITY AND RELIABILITY

Validity of the instrument is ensured after extensive literature study and discussion with entrepreneurs, experts and research supervisor. Reliability is measured with help of Cronbach's alpha statistic.

In the present research, multi item scales are checked for reliability analysis with the help of SPSS Version 16. The Cronbach's alpha values range from .72 to .88 for different segments of research instrument indicating that the data is suitable for confirmatory purpose.

4.8 SOURCES OF DATA

Primary data sources are used for the purpose of research. The data and information were collected from the primary source through self administered structured pretested questionnaire. Field survey was conducted across different

Universities in and around Chennai. A total of 650 questionnaires were collected and found to have data completed as per requirement

4.9 ANALYTICAL TOOLS ADOPTED FOR STUDY

To analyse the data collected through the instrument containing constructs with statements appropriately designed for the collection of data with objectives of the study. To get the appropriate results for the study the following statistical methods and instruments were used.

The tools are Student t- Test, chi-square, ANOVA, correlation analysis, discriminant analysis, multiple regression and structural equation modeling techniques are used to obtain appropriate inferences.

4.10 FRAMEWORK OF ANALYSIS

In order to examine the demographic features of students, the frequency and percentage analysis have been carried out. The weighted mean has worked out for entrepreneurial intentions of students and dimensions affecting the entrepreneurial intention of students. In order to study the association between demographic features and level of entrepreneurial intentions of students, the Chi-Square test has been applied. The confirmatory factor analysis has been carried out for dimensions affecting the entrepreneurial intentions of students.

In order to examine the difference among the various items of entrepreneurial intensions and difference among the various items of dimensions affecting the entrepreneurial intentions of students, the Analysis of Variance (ANOVA) test has been employed. The correlation analysis has been applied to examine the associate relationship among the various items of entrepreneurial intensions and dimensions affecting the entrepreneurial intentions and entrepreneurial intentions of students.

In order to examine the influence of demographic features on entrepreneurial intentions of students and examine the impact of entrepreneurship dimensions on

entrepreneurial intentions among the students, the multiple linear regression has been employed. In order to discriminate the students based on the desirability and feasibility dimensions, the discriminant analysis has been applied. In order to study the structural relationship between selected demographic features and key dimensions of entrepreneurial intentions, the Structural Equation Model (SEM)has been employed.