CHAPTER 3

METHODOLOGY

The methodology adopted for the current study on “Entrepreneurial attitude orientation and intention among various Categories of Students” is discussed under the following heads:

3.1 Selection of the area
3.2 Selection of the sample
3.3 Collection of data
3.4 Period of the study
3.5 Formulation of Hypotheses
3.6 Conceptual Framework
3.7 Techniques of analysis and
3.8 Tabulation and analysis of data

3.1 Selection of the area

The current study is related to Coimbatore. Coimbatore is the second largest city in the State of Tamil Nadu. It is one among the industrially developed and commercially vibrant Districts of Tamil Nadu. It has high concentration of more than 30000 tiny, small, medium, large industries and textile mills and it is one of the greatest industrial cities in South India. The city is known for entrepreneurship of it’s residents. (Coimbatore District Profile, 2013)

Profile of the study area

3.1.1 Geography and Climate

Coimbatore is situated in the west of Tamil Nadu bordering Palghat District of State of Kerala. It has an area of 105.5 square kilometers. The city lies between 10° 10’ & 11° 30’ of Northern latitude and 76° 40’ and 77° 30’ of Eastern longitude in the extreme west of TamilNadu near Kerela State at an elevation of 432 meters from sea level. Coimbatore has a pleasant climate due to it’s
proximity with thickly forested mountain ranges and the cool breeze blowing through Palghat gap. The maximum and minimum temperature varies between 35°C and 18°C, highest temperature ever recorded is 41°C and lowest is 8°C. The average rainfall is around 700 millimeters with the Northeast and Southwest monsoon contributing to 47 percent and 28 percent respectively to the total rainfall.

3.1.2 Population

According to 2011 Census, Coimbatore had a population of 10,50,721 with a sex ratio of 997 females for every 1000 males. Of total population, 1,02,069 were under the age of six and there were 4,25,115 workers. Scheduled castes and scheduled tribes accounted for 10.27 percent and 0.07 percent of the population respectively. The average literacy of the District was 82.43 percent compared to the national average of 72.99 percent. (Coimbatore District Census, 2011)

3.1.3 Administration

Coimbatore is a municipal corporation as well as the head quarters of the Coimbatore District. The city is divided into five administrative zones – East, West, North, South and Central.

3.1.4 Education

Coimbatore is an educational hub of Southern part of India. Coimbatore District is home for 6 Universities, 92 Engineering colleges, 3 Medical colleges, 35 Polytechnics colleges and more than 150 Arts and Science colleges and a large number of schools. It has the highest density of educational institutions in the State. Over 25,000 postgraduate students of various disciplines pass out each year (Coimbatore District Profile, 2013).

3.2 Selection of the sample

The study adopted multi stage stratified random sampling method. In the first stage, the University for the study was selected. Among the various Universities in Coimbatore - Amirtha University, Avinashilingam University, Bharathiar University, Karpagam University, Karunya University and TamilNadu
Agricultural University, Bharathiar University was selected for the study since the study was focused on affiliating type of University offering postgraduate programmes in Arts, Science and Commerce.

In the second stage, the colleges for the study were selected. The following conditions were laid to select colleges for the inclusion in the sampling frame.

a) Colleges admitting both boys and girls;

b) All the three streams of study - Arts, Science and Commerce are being offered in the colleges and

c) Colleges, which have successfully completed ten academic years

The colleges satisfying all the conditions were included in the sample. Based on the above considerations the following affiliated colleges were included in the sampling frame.

a) VLB Janaki Ammal college of Arts and Science;

b) Dr. S.N.S. Rajalakshmi College of Arts and Science;

c) Dr.N.G.P. Arts and Science College;

d) Hindusthan College of Arts and Science;

e) G.R.Damodaran college of Science;

f) S.N.R Sons College and

g) CMS College of Science and Commerce

In the third stage, the respondents for the study were selected. The study was confined to final year postgraduate students of Arts, Science and Commerce in the selected colleges. From the list of students, every alternate student was selected for the study. Table 1 represents the sampling framework adopted in the study.
Table 1
Sampling Framework adopted in the study

<table>
<thead>
<tr>
<th>Stream of Study</th>
<th>VLB College</th>
<th>SNS College</th>
<th>NGP College</th>
<th>Hindusthan College</th>
<th>GRD College</th>
<th>SNR College</th>
<th>CMS College</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>63</td>
<td>31</td>
<td>62</td>
<td>59</td>
<td>65</td>
<td>58</td>
<td>64</td>
<td>434</td>
</tr>
<tr>
<td>Science</td>
<td>90</td>
<td>45</td>
<td>85</td>
<td>91</td>
<td>64</td>
<td>71</td>
<td>70</td>
<td>544</td>
</tr>
<tr>
<td>Commerce</td>
<td>95</td>
<td>48</td>
<td>98</td>
<td>123</td>
<td>87</td>
<td>85</td>
<td>88</td>
<td>661</td>
</tr>
<tr>
<td>All streams of study</td>
<td>248</td>
<td>124</td>
<td>221</td>
<td>245</td>
<td>273</td>
<td>216</td>
<td>222</td>
<td>1639</td>
</tr>
</tbody>
</table>
Out of the total 1639 prospective survey participants from various disciplines, 817 respondents participated in the survey. On perusal, it was found that a few response sheets were incomplete and few were not marked properly. Hence, those sheets were eliminated. Finally, the sample consisted of 701 respondents. Of the total sample, 178 respondents (26 percent) were belonging to arts, 234 respondents (33 percent) were belonging to science and 289 respondents (41 percent) were belonging to commerce stream of study.

3.3 Collection of data

The data required for the present study was primary in nature. In order to collect relevant information three sections of interview schedule has been designed. (Appendix 1)

Section - A of the interview schedule is related to the biographic and demographic profile and contains information relating to age, gender, education, place of residence, order of birth, parental education, parental occupation, size of the family, family income, family property, preference for self employment, influencing factors to start business, exposure to entrepreneurship and required support to start own business..

Section – B is related to the Entrepreneurial Attitude Orientation Scale. The study tried to use Entrepreneurial Attitude Orientation Scale developed by Robinson et al.,(1991), adopted by Venkatapathy et al.,(1999), and adopted and modified by Shanmugavelan and Venkatapathy (2003). The entrepreneurial attitude orientation scale specifically measures the entrepreneurial attitude orientation among individuals. The scale has been considered a pioneering one in the measurement of entrepreneurial attitude. It is one of the standardized measures used to assess the entrepreneurial attitude.

The scale consists of 74 statements to be responded using a five point Likert rating scale starting from Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree(4) and Strongly Agree (5). For reverse scoring, the score was given as Strongly Agree(1), Agree(2), Neither Disagree Nor Agree(3), Disagree (4) and Strongly Disagree (5) respectively.
Among the 74 statements, 61 items were scored on the direct method while 13 items were scored using the reverse method. The maximum possible score on entrepreneurial attitude orientation is 370 and minimum is 74. Higher the score, higher is the entrepreneurial attitude orientation. Entrepreneurial attitude orientation comprises of the sub scale scores to constitute the individual's attitude orientation. The scale comprises of four subscales namely

a) Achievement- Number of items- 23: Maximum score is 115 and minimum score is 23.

b) Innovation- Number of items- 25: Maximum score is 125 and minimum score is 25.

c) Personal control- Number of items -12: Maximum score is 60 and minimum score is12.and

d) Self-esteem- Number of items -14: Maximum score is 70 and minimum score is 14.

Section C is related to the Entrepreneurial Intention Scale. The study tried to adopt Entrepreneurial Intention scale developed by Arthi and Venkatapathy (2011). The entrepreneurial intention scale comprises of 62 items consisting of six different sub scales measuring the various properties of entrepreneurial intention. Each statement is to be answered using a four point Likert rating scale starting from Strongly Disagree (1), Disagree (2), Agree (3) and to Strongly Agree (4). The six sub scales are

a) Commitment - Number of items-8 : Maximum score is 32 and minimum score is 8

b) Attitude - Number of items-11 : Maximum score is  44 and minimum score is 11

c) Risk Taking - Number of items-10 : Maximum score is 40 and minimum score is 10.

d) Feasibility- Number of items -15 : Maximum score is 60 and minimum score is 15
e) Desirability - Number of items-10: Maximum score is 40 and minimum score is 10 and

f) Motivation - Number of items-8: Maximum score is 32 and minimum score is 8

3.3.1 Pilot Study

To check the accuracy and validity of Entrepreneurial Attitude and Intention Scale, a pilot study was conducted in September 2013 for the sample of 60 students. The sample was selected from the final year postgraduate students among the various streams of study. Each subscale was subjected to reliability testing using the Spearman Brown’s split half reliability test. The odd numbered and even numbered items were correlated employing the Pearson’s coefficient of correlation method. Such correlations were later connected to the Spearman-Brown prophecy formula to arrive at the reliability coefficients. Further Cronbach alpha was calculated for the total reliability of the scale. Table 2 shows the reliability coefficients of subscale of entrepreneurial attitude orientation and entrepreneurial intention.
### Table 2

The reliability coefficients of subscale of entrepreneurial attitude orientation and entrepreneurial intention

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Cronbach Alpha</th>
<th>Split half coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entrepreneurial Attitude</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subscale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>0.934</td>
<td>0.842</td>
</tr>
<tr>
<td>Innovation</td>
<td></td>
<td>0.698</td>
</tr>
<tr>
<td>Personal Control</td>
<td></td>
<td>0.764</td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
<td>0.782</td>
</tr>
<tr>
<td><strong>Entrepreneurial Intention</strong></td>
<td>0.921</td>
<td></td>
</tr>
<tr>
<td>Subscale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>0.684</td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>0.868</td>
<td></td>
</tr>
<tr>
<td>Risk taking</td>
<td>0.783</td>
<td></td>
</tr>
<tr>
<td>Feasibility</td>
<td>0.821</td>
<td></td>
</tr>
<tr>
<td>Desirability</td>
<td>0.794</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td>0.726</td>
<td></td>
</tr>
</tbody>
</table>

Calculations based on Field Survey 2013
The reliability coefficients of the scales used have fulfilled the adequacy norms and are considered to be fit for the administration of the selected instrument to a larger population.

### 3.3.2 Reliability of Entrepreneurial Attitude Orientation Scale

Based on the results of the pilot study, for the entire sample reliability and validity of entrepreneurial attitude orientation scale and entrepreneurial intention scale was found out.

Table 3 represents Spearman-Brown Split-half co-efficient of different subscales of Entrepreneurial Attitude Orientation Scale. (EAOS)

**Table 3**

**Spearman-Brown split-half coefficient of different subscales of entrepreneurial attitude orientation scale**

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Spearman-Brown Split-half Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>0.764</td>
</tr>
<tr>
<td>Innovation</td>
<td>0.765</td>
</tr>
<tr>
<td>Personal Control</td>
<td>0.647</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.728</td>
</tr>
</tbody>
</table>

Calculation based on Field Survey 2013-2014

The entrepreneurial attitude orientation scale is reported to have high reliability since the Spearman - Brown split-half coefficients for all the subscales were greater than the threshold level of 0.60.

### 3.3.3 Validity of Entrepreneurial Attitude Orientation Scale

The study tried to test the validity of Entrepreneurial Attitude Orientation Scale by calculating Root Mean Square Error Approximation (RMSEA), Goodness of Fit Index (GFI), Composite Fit Index (CFI), Tucker Lewis Index (TLI) and HOELTER index. Confirmatory factor analysis was performed to verify the
factor structure of a set of entrepreneurial attitude orientation constructs. Four constructs including 74 items were employed for confirmatory factor analysis to identify the relationship among the concepts and their measures. The relationship between observed variables and their underlying latent construct - Achievements, Innovation, Personal Control and Self-esteem was analysed by using SPSS 21 and AMOS software version 20.

Fit indices were used to determine the well priori model fit of the sample data. Table 4 shows the details of model fit indices of Entrepreneurial Attitude Orientation Scale.

Table 4

<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Estimated value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square/degrees of freedom (CMIN/df)</td>
<td>2.262</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0.042</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI )</td>
<td>0.942</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0.916</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>0.908</td>
</tr>
<tr>
<td>HOELTER Index</td>
<td>324</td>
</tr>
</tbody>
</table>

Calculations based on field survey- 2013-2014

In the above model the CMIN/df, RMSEA, GFI, CFI, TLI and HOELTER index satisfy the acceptable threshold level. This indicates that the construct model have sufficient sample size and demonstrates that the model have a good fit to prove the validity of entrepreneurial attitude orientation.

Figure -1 represents the correlation coefficients between the subscales of Entrepreneurial Attitude Orientation Scale and the factor loadings of each item of subscales of Entrepreneurial Attitude Orientation Scale.
Figure 1

Correlation coefficients between the subscales of Entrepreneurial Attitude Orientation Scale and the factor loadings of each item of Subscale of Entrepreneurial Attitude Orientation Scale

F1 – Achievement
F2 – Innovation
F3 – Personal Control
F4 – Self Esteem
The scale has the internal validity, since the correlations between the subscales are below 0.5 and there is discriminant validity of each pair of scale measuring independent constructs. Construct validity was estimated based on convergent validity. In the above model, the factor loadings of each item were above 0.5 and this proves that the scale has the convergent validity.

3.3.4 Reliability of Entrepreneurial Intention Scale

The reliability of the scale was found out by calculating Spearman-Brown split-half coefficient. Table 5 represents the Spearman Brown Split-half co-efficient of subscales of Entrepreneurial Intention Scale (EIS).

Table 5

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Spearman Brown Split-half Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>0.638</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.688</td>
</tr>
<tr>
<td>Risk taking</td>
<td>0.724</td>
</tr>
<tr>
<td>Feasibility</td>
<td>0.734</td>
</tr>
<tr>
<td>Desirability</td>
<td>0.731</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.637</td>
</tr>
</tbody>
</table>

Calculations based on field survey- 2013-2014

The reliability for the entrepreneurial intention sub-scales has achieved a higher level of significance using the (odd-even)split-half method connected to the Spearman – Brown prophecy formula.

3.3.5 Validity of Entrepreneurial Intention Scale

The study tried to test the validity of entrepreneurial intention scale by finding out the RMSEA (Root Mean Square Error Approximation), GFI (Goodness of Fit Index), CFI (Composite Fit Index), Tucker Lewis Index (TLI) and HOELTER Index. The study tried to test the relationship between observed variables and
their underlying latent constructs - commitment, attitude, risk-taking, feasibility, desirability and motivations. Table 6 shows the model fit indices of entrepreneurial intention scale.

Table 6

Model fit indices of entrepreneurial intention scale

<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Estimated value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square/degrees of freedom (CMIN/df)</td>
<td>2.094</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0.040</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI )</td>
<td>0.943</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0.904</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>0.910</td>
</tr>
<tr>
<td>HOELTER Index</td>
<td>361</td>
</tr>
</tbody>
</table>

Calculations based on field survey- 2013-2014

In the above model the CMIN/df, RMSEA, GFI, CFI, TLI and HOELTER indices satisfy the acceptable threshold level. This indicates that the construct model have sufficient sample size and demonstrates that the model have a good fit to prove the validity of entrepreneurial intention scale.

Figure-2 represents the correlation coefficients between the subscales of Entrepreneurial Intention Scale and the factor loadings of each item of sub scale of Entrepreneurial Intention scale.
Figure 2

Correlation coefficients between the sub scales of Entrepreneurial Intention Scale and the factor loadings of each item of sub scale of Entrepreneurial Intention Scale

F1 – Commitment
F2 – Attitude
F3 – Risk-taking
F4 – Feasibility
F5 – Desirability
F6 – Motivation
The scale has internal validity since the correlation between the subsales are below 0.5. In the above model, the factor loadings of each item were above 0.5 and it is proved that the scale has the convergent validity.

3.4 Period of study

The study was carried out during the period from December 2013 to March 2014.

3.5 Formulation of Hypotheses

The dearth of research work on entrepreneurial intention and relatively lesser extent on entrepreneurial attitude orientation domains gave fillip to advance the following specific null hypotheses for the verification and testing.

a) There is no significant association between attitude towards entrepreneurship and socio economic characteristics of the students.

b) Age, gender, place of residence, father’s education, mother’s education, father’s occupation, mother’s occupation, family income, family property, family influence, membership in entrepreneurship development programme cell and participation in entrepreneurship development training programme are insignificant determinants of intention towards entrepreneurship among the students.

c) The male and female students would remain to be homogenous on all subscales of Entrepreneurial Attitude Orientation Scale - Achievement, Innovation, Personal Control and Self-Esteem.

d) The students belonging to various streams of study would remain to be homogenous on all subscales of Entrepreneurial Attitude Orientation Scale - Achievement, Innovation, Personal Control and Self-Esteem.

e) The students belonging to different gender and various streams of study would remain to be homogenous on all subscales of Entrepreneurial Attitude Orientation scale - Achievement, Innovation, Personal Control and Self-Esteem.
f) The male and female students would remain to be homogenous on all subscales of entrepreneurial intention Scale - Commitment, Attitude, Risk taking, Desirability, Feasibility, and Motivation.

g) The students belonging to various streams of study would remain to be homogenous on all subscales of entrepreneurial intention Scale- Commitment, Attitude, Risk taking, Desirability, Feasibility and Motivation.

h) The students belonging to different gender and various streams of study would remain to be homogenous on all subscales of entrepreneurial intention scale- Commitment, Attitude, Risk taking, Desirability, Feasibility and Motivation and

i) There is no significant relationship between the entrepreneurial attitude orientation, entrepreneurial intention and entrepreneurial behaviour.

3.6 Conceptual Framework

The conceptual framework for the current study is built based on the theory of planned behaviour by Ajzen (1991) and entrepreneurial event model proposed by Shapero and Sokol (1982). This conceptual framework explains that entrepreneurial behaviour is associated with the entrepreneurial attitude and intention among students. The theory explains the relationship between people’s attitude and beliefs. According to the model, people’s evaluation of the attitude towards behaviour is determined by their accessible beliefs about the behavior and the belief is defined as the subjective probability that the behaviour will produce a certain outcome. Empirical testing of entrepreneurial intention among students has found support for both Shapero entrepreneurial event model and the theory of planned behaviour (Kolveriod, 1996; Kreuger, et al., 2000).

In the current study, achievement, innovation, personal control and self-esteem are the four dimensions considered under entrepreneurial attitude and commitment, attitude, risk taking, feasibility, desirability and motivation are characterized by entrepreneurial intention. Following, Ajzen and Shapero's model, the current study proposes that more favourable the attitude, more favourable should be the person’s intention to perform the behaviour.

Figure- 3 represents the entrepreneurial behaviour model.
Entrepreneurial Behaviour Model

Figure 3

Achievement
Innovation
Personal control
Self-esteem

Entrepreneurial Attitude

Entrepreneurial Intention

Entrepreneurial Behaviour

Commitment
Attitude
Risk-taking
Feasibility
Desirability
Motivation
3.6.1 Operational definitions

a. Achievement in business: This refers to concrete results associated with the start up of a business.

b. Innovation in business: This relates to acting on business activities in unique and novel ways.

c. Personal control of business: This refers to one’s perception of control or influence over his or her business.

d. Self-esteem in business: This relates to self-confidence with regard to one’s business affairs.

e. Commitment: This refers to the commitment of the individual towards entrepreneurial behaviour.

f. Attitude: This refers to the respondent’s attitude about entrepreneur’s effort in starting and managing a business and the rewards of being an entrepreneur.

g. Risk-taking: It refers to readiness to face uncertain situations, preference between a job and an own enterprise and understanding of relation between risk and returns in a business.

h. Feasibility: This refers to the degree to which one believes that he or she is personally capable of starting a business.

i. Desirability: It refers to the degree to which one finds the prospects of starting a business to be attractive.

j. Motivation: It denotes the extent to which a person has the drive to accomplish a goal.

3.7 Techniques of Analysis

In order to analyse the data based on the objectives of the study, the following quantitative tools were applied to test the tabulated data.
a. Chi-Square Analysis

The study used chi-square analysis to find out the association between the attitude towards entrepreneurship and socio economic characteristics of the respondents. The socio-economic characteristics are age, gender, place of residence, stream of study, father's education, mother's education, father's occupation, mother's occupation, family income and family property of the respondents. The formula used was

\[ X^2 = \frac{\sum (O-E)^2}{E} \]

where, \( O \) – Observed Frequency and \( E \) – Expected Frequency

If the calculated value of the chi-square is less than the table value at 5 percent level of degrees of freedom, the null hypothesis is accepted and if the calculated value is greater than the table value, the null hypothesis is rejected.

b. Analysis of Variance (ANOVA)

The study tried to apply analysis of variance to find out whether the students belonging to different sex, different streams of study and different gender and various streams of study would remain to be homogenous on different sub scales of entrepreneurial attitude orientation scale - Achievement, Innovation, Personal Control and Self-esteem.

Similarly, the technique of analysis of variance was used to test whether the students belonging to different gender, various streams of study and different gender and various streams of study would remain to be homogenous on different sub scales of entrepreneurial intention scale - Commitment, Attitude, Risk taking, Feasibility, Desirability, and Motivation. 2X3 factorial ANOVA (unequal N) was computed using the SPSS version 20.
**c. Logistic regression analysis**

The study tried to apply logistic regression analysis to find out the prediction of socio economic characteristics on intention towards entrepreneurship among students from various streams of study. The logistic regression is one that specifies a functional relationship between a dichotomous dependent variable and categorical independent variables. In fact, it is a method of multivariate analysis of the multiple regression model designed to deal with the situation when one has the measurement of presence or absence, occurrence or non-occurrence of some factors. Logistic regression is concerned with modelling the odds of dependent variable and the parameters of logistic regression are easily interpreted since they are expressed as odd ratios. The basic form of logistic function is:

\[ P = \frac{1}{1 + e^{-z}} \]

When numerator and denominator of the right side of the above equation are multiplied by \(e^z\), the logistic function can be expressed in the following manner:

\[ P = \frac{\exp(z)}{1 + \exp(z)} \]

In the above equation \(z\) is the predictor variable and \(e\) is the base of natural logarithm, equal to 2.7182. If \(z\) is a linear function of a set of predictor variables then:

\[ Z = b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_k X_k \]

This expression is substituted in the formula for logistic function. Thus, the function becomes

\[ P = \frac{1}{1 + e^{-(b_0 + b_1 x_1 + b_2 x_2 + \ldots + b_k x_k)}} \]

Odd ratio is the ratio of the probability of the event occurring to the probability of the event not occurring and is denoted as:
\[
\ln \left( \frac{P_i}{1 - P_i} \right) = b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_k X_k + e
\]

Where,

- \( P_i \) = Probability of the event occurring;
- \( b_0 \) = Constant term;
- \( X_1 \) to \( X_k \) = Independent variables;
- \( b_1 \) to \( b_k \) = Unknown regression coefficients associated with the independent variables \( X_1 \) to \( X_k \) and
- \( e \) = Error term representing unobserved variables that influence dependent variable.

The quantity \( P/1 – P \) is called the odds. In the current study, the logistic regression was used to identify the prediction of socio economic characteristics towards entrepreneurial intention.

\[
Y_i = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + U
\]

where

- \( Y = \) Intention towards entrepreneurship

(\( Y = 1 \), if the student has entrepreneurial intention and \( Y = 0 \), if the student does not have entrepreneurial intention)

- \( X_1 \) = Age in years;
- \( X_2 \) = Gender (Male = 1, Female = 0);
- \( X_3 \) = Place of residence (Urban = 1, Rural = 0);
- \( X_4 \) = Father’s education (Graduate and above = 1, Below Graduate = 0);
- \( X_5 \) = Mother’s education (Graduate and above = 1, Below Graduate = 0);
- \( X_6 \) = Father’s occupation (Regular employment = 1, Self employment = 0);
- \( X_7 \) = Mother’s occupation (Regular employment = 1, Self employment = 0);
- \( X_8 \) = Monthly family income (in Rupees);
\[ X_9 = \text{Property (Value in Rupees)}; \]
\[ X_{10} = \text{Family Influence (Having family influence=1, Not having family influence=0)}; \]
\[ X_{11} = \text{Participation in entrepreneurship development training programme (Participated=1, not participated=0)} \]
\[ X_{12} = \text{Membership in entrepreneurship development cell (Member=1, not a member=0)} \]

d. Structural Equation Modelling (SEM)

In the current study, Structural Equation Modelling (SEM) was used to analyse more accurately the relationship between the entrepreneurial attitude orientation, entrepreneurial intention and entrepreneurial behaviour. The goal is to determine whether a hypothesized theoretical model is consistent with the data collected to reflect this theory. In the present study, it is attempted to find a causal relationship between entrepreneurial attitude and entrepreneurial intention towards behaviour, based on the data collected from students belonging to various streams of study. This path model is based on the theory of planned behaviour.

Structural equation modelling involves the evaluation of two models: a path model and a measurement model. Path analysis can be considered a special case of structural equation modelling in which structural relations among observed variables are modeled. This is because analyzing interrelationships among variables is a major part of structural equation modelling and these interrelations are hypothesized to generate specific observed covariance patterns among the variables. The measurement model in structural equation modelling is evaluated through the confirmatory factor analysis (CFA). Confirmatory factor analysis allows an indicator to load on multiple factors (latent constructs). The combination of confirmatory factor analysis model with structural path model on the latent constructs represents the general structural equation modelling framework in analysing covariance structures. The effect of one variable on another was analysed by calculating path coefficient (Hair et al., 2006).
The model fit was analysed by calculating chi-square ($X^2$) / degrees of freedom (DF) $< 5$, the Goodness of fit index (GFI $> 0.90$), Tucker- Lewis index (TLI $>0.90$), Comparative fit index (CFI $>0.90$) and Root Mean Square Error of Approximation (RMSEA $<0.08$). Structural equation modelling was fitted by using Excel 2007, SPSS and AMOS version 20.

3.8 Tabulation and analysis of data

The data had been tabulated appropriately under suitable heads and where ever necessary percentages and averages have been used for the purposes of summarizing the data and pictorial representations are given in the appropriate places.