CHAPTER –III
METHODOLOGY

The present investigation has been designed to study the psychological, socio-economic and demographic variables of women entrepreneurs of Punjab/ Delhi /Haryana. It was intended to study the relation of psychological variables, socio-economic variables and demographic variables with entrepreneurial success. Psychological variables include four decision making styles –rational decision making style, intuitive decision making style, dependent decision making style and avoidant decision making style; four motives i.e. need for achievement, need for affiliation, need for approval and need for power; four entrepreneurial orientation attributes –innovation, personal control, self-esteem and goal accomplishment; and three personal attributes- creativity, delegation of authority and risk taking propensity. Demographic variables incorporated in the present study include age, educational qualification, type of business, number of employees working with an entrepreneur, business form and occupational experience. Socio-economic variables include residential status, monetary investment in business, sources of finance and family history of business. Entrepreneurial success of women entrepreneurs was measured on the basis of monthly income earned by a respondent.

The research methodology used to achieve the predefined objectives has been described in the following section.

1. Description of the sample
2. Brief description of the tests
3. Administration of the tests
4. Scoring of tests
5. Statistical tools used

1. Description of Sample:

A sample of 389 women entrepreneurs was selected from various districts of Punjab/ Haryana/ Delhi to participate in the present study. Though efforts have been made to approach District industrial centers (DICs) but the available
information regarding women entrepreneurs was not sufficient for the purpose of present study. Moreover, as the sector is unorganized and universe was not known and hence random sampling cannot be used. Therefore, researcher was constrained to use convenient sampling. The participation of the respondents was voluntary. They were in age of less than 25 to greater than 55 years. Minimum educational qualification was under matric. Entrepreneurs were having occupational experience of less than 5 years to greater than 10 years. In the present study effective response could be obtained from 248 women entrepreneurs only (44 from Punjab, 143 form Haryana and 61 from Delhi).

A structured questionnaire was administered to 389 women entrepreneurs belonging to North Indian states namely Punjab/ Haryana /Delhi for undertaking the survey of women entrepreneurs through personal contacts, e-mail and snowball technique to elicit information regarding demographic, socio-economic attributes (age, education, type of business, number of employees working with an entrepreneur, business form, occupational experience, residential status, investment in business, sources of finance, family history & monthly income from the unit) and psychological attributes (decision making styles, motivational attributes, entrepreneurship orientation attributes, personal attributes) and entrepreneurial success. Respondents were found into multiple businesses of boutiques, beauty parlors, retail stores, private schools, play schools, baby care centers, practicing private doctors and consultancy firms. A total of 389 women entrepreneurs were contacted but effective response could be obtained from 248 women entrepreneurs only. So response rate is 63.75 percent on the basis of which results are interpreted.

Table A: Table representing the sample description

<table>
<thead>
<tr>
<th>State/Activity</th>
<th>Manufacturing</th>
<th>Trading</th>
<th>Service sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab(44)</td>
<td>8(18.18)</td>
<td>17(38.63)</td>
<td>19(43.18)</td>
</tr>
<tr>
<td>Haryana(143)</td>
<td>11(7.69)</td>
<td>54(37.76)</td>
<td>78(54.54)</td>
</tr>
<tr>
<td>Delhi(61)</td>
<td>2(3.27)</td>
<td>26(42.62)</td>
<td>33(54.09)</td>
</tr>
<tr>
<td>Total(248)</td>
<td>21(8.46)</td>
<td>97(39.11)</td>
<td>130(52.41)</td>
</tr>
</tbody>
</table>

Note: figures in parentheses represent the respective percentage.
2. Description of tests

In order to have assessment of various variables that contribute to entrepreneurial success, standardized questionnaires were used to collect the required information. The questionnaires, each for decision making style, motives assessment, entrepreneurial orientation attributes and personal attributes (self-developed) were used to collect the data for the present study. A brief description of all the five tests is as under.

i. **Decision making style (Scott and Bruce, 1995)**

The premise underlying decision research is that the decisions we make on a daily basis shape our lives. Entrepreneurs as decision makers are required to make effective decisions to adapt to the changing environment, maintain social competence, and reach goals (Nezu & Ronan, 1987 and Hastie, 2001). Decision making style is a habit based propensity to respond in a certain way when making decisions. Decision making style has been assessed by using a questionnaire as recommended by Scott and Bruce (1995). The author developed 16 item questionnaire having statements that represent the considerations, individuals take while decision making or arriving at a solution. The responses for each item is measured on a five point Likert scale with labels from strongly agree to strongly disagree. A score of ‘1’ was given to strongly disagree and ‘5’ was given to strongly agree. Score for different decision making styles were arrived at by summing up the scores of statements relevant for those. The test-retest reliability coefficient was .610.

Decision making scale includes four statements to judge rational decision making of entrepreneurs i.e. 1, 5, 9, 13, four statements to judge intuitive decision making of entrepreneurs i.e. 2, 6, 10, 14, four statements to judge dependent decision making of entrepreneurs i.e. 3, 7, 11, 15 and four statements to judge avoidant decision making of entrepreneurs i.e. 4, 8, 12, 16.

ii. **Motive scales (Mishra and Tripathi, 1980)**

For the assessment of need for achievement, need for affiliation, need for power and need for approval, the scales developed by Mishra & Tripathi (1980) were used.
These scales consist of four subscales. The measure for need for achievement consisted of twelve items. The measure for need for affiliation consisted of eleven items. The measure for need for power consisted of nine items and the measure for need for approval consisted of twelve items. Hence, the total number of items in these scales was forty four.

The items in each subscale consisted of attitude statements and the subject was required to respond to them by stating their degree of agreement ranging from ‘to a very great extent’ to ‘almost no extent’ (i.e., ranging from 5 to 1). The score of the subject was the total score obtained on all the subscale items. The items were constructed in such a way that in about 50 % of the items positive responses indicated presence of high motive.

The test-retest reliabilities for the scales ranged from 0.59 to 0.73 with an interval of one month as reported by the author. The odd-even split half reliabilities were also calculated and found to be in the range of 0.37 to 0.67.

iii. **Entrepreneurial orientation attributes (Shetty, 2004)**

The work of (Robinson et al., 1991) was one of the first to incorporate an attitude scale to predict entrepreneurial activity. Robinson et al. (1991) developed the Entrepreneurial Attitude Orientation (EAO) model based on the four constructs of achievement, innovation, personal control, and self esteem in business.

Entrepreneurial attitude orientation scale originally developed by Robinson et al. (1991) consisting of 89 items was redesigned using hierarchical cluster analysis resulting in existence of 8 groups/factors consisting of 45 items (Shetty, 2004). Conbach alpha ranges between 0.53 and 0.76. The scales have been used to measure innovation, self-esteem, personal control and goal accomplishment. As a research tool, the respondents/subjects were made to respond with regard to statements on five-point Likert’s rating scale ranging from strongly disagree (1) to strongly agree (5).

Some items in the scale were reversed scored to enhance the consciousness of the respondent. The scale consisted of total forty five items out
of which sixteen relates to innovation; eleven relates to self-esteem, four relates to personal control and fourteen relates to goal accomplishment.

iv. **Personal attributes (Self-developed)**

In the present study we have taken three scales to identify personal attributes i.e. creativity, delegation of authority and risk taking propensity of women entrepreneurs.

Creativity is defined as the process of using imagination and skill to develop a new or unique product, object, process or thoughts. Sternberg (1999) views creativity as “the ability to produce work that is both novel (i.e. original, unexpected) and appropriate (i.e. useful, adaptive concerning task constraints”). In the present investigation at the administration of a test in order to access the creativity of the respondents, investigator developed a set of questions on five point scale with the help of literature and experts review. Various aspects of creativity are measured on a 5 point scale ranging from always (5) to never (1).

Delegation of authority is a process by which authority is distributed downward in an organization. The degree of delegated authority can be relatively high or low. Any particular job involves a range of alternative configurations of authority delegation. Entrepreneurs while delegating authority must balance the relative gains and losses of alternatives (Arko et al., 1999). In the present study delegation of authority is assessed by using a five statement subscale and measured on a 4 point scale ranging from extensively (4) to not at all (1).

Timmons (1989) views risk as “state that entrepreneurs tend not to be gamblers but they assess and measure risks carefully” while Brockhaus (1980) defines risk as “the perceived possibility of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequence than the proposed situation”. However, compared to other groups such as managers, non-entrepreneurs, and teachers, entrepreneurs are found to have higher propensity to take risk (Cromie, 2000). Thus, risk taking is an important
component of a strong entrepreneurial orientation. In the present study to measure risk taking propensity of women entrepreneurs a five statement dichotomus subscale (YES/NO) has been designed with help of literature and expert views.

The items related to personal attributes were extracted consulting literature and seeking the advice of various experts.

**Entrepreneurial Success**

Although success originally referred to any positive outcome, it has become increasingly associated with wealth & prestige (Oxford English Dictionary, 1971). In this present study success has been objectively defined on the basis of monthly income earned by a women entrepreneur and the same is used to measure the extent of success of women entrepreneurs.

For the purpose of study success is categorized into four categories: Low success, moderately low success, moderately high success and high success depending on the net monthly income/ profit earned.

The gradation is as follows:

- **Low Success**: A women entrepreneur who earns a net profit / income up to ₹10,000 per month is classified as low success group.

- **Moderately Low Success**: A women entrepreneur who earns a net profit / income ranging from ₹10,001-20,000 per month is classified as moderately low success group.

- **Moderately High Success**: A women entrepreneur who earns a net profit / income ranging from ₹20,001-30,000 per month is classified as moderately high success group.

- **High Success**: A women entrepreneur who earns a net profit / income more than ₹30,000 per month is classified as high success group.

3. **Administration of the tests**

After preliminary communication through different modes of communication i.e. personal, telephonic, e-mail proper rapport was established and their willingness to participate was ascertained. The respondents were contacted at their respective work places or residences (if it was workplace as
well) as per their willingness. A total of 389 questionnaires were personally & electronically administered to women entrepreneurs doing businesses in Punjab/ Haryana/ Delhi. Attempts were made to get the maximum cooperation of the participants; however 248 questionnaires were appropriately filled and returned back resulting in response rate of 63.75%. Respondents were also assured about their anonymity. In general the subjects were cooperative.

4. Scoring

Tests were scored using prescribed scoring keys recommended by the authors of the respective tests/questionnaires/scales. Decision making styles were scored four variables on a five point scale. A score of 1 was assigned to the response strongly disagree, 2 to disagree, 3 to neutral, 4 to agree and 5 to strongly agree. Initially each item was scored separately and then four sets of total scores were obtained by adding up individual item for different decision styles i.e. rational decision making style, intuitive decision making style, dependent decision making style and avoidant decision making style. A minimum and maximum possible score is 16 and 80, respectively.

Motive scales were scored for four motives i.e. need for achievement, need for affiliation, need for approval and need for power motive on a five point scale. A score of 1 for the response ‘almost no extent’, 2 for ‘to a small extent’, 3 for ‘to some extent’, 4 for ‘to a great extent’ and 5 for ‘to a very great extent’. The scores of negatively phrased statement were reverse to it. Statements scores from 17-28 were added up to arrive at a total score for ‘need for achievement’, Scores from 29-39 were added up to arrive at a total score for ‘need for affiliation’, statements numbered from 40-51 were summed up to arrive at a total score obtained for ‘need for approval’ and statements form 52-60 were totaled to arrive at a score of ‘need for power’.

Entrepreneurial orientation attributes were scored for innovation, self-esteem, personal control, goal accomplishment on a five point scale ranging from strongly disagree ‘1’ to strongly agree ‘5’. Some statements in the scale were negatively phrased and hence their scoring was reversed. Initially each item
was scored separately and then four sets of total scores were obtained by adding up individual item for different entrepreneurial orientation attributes.

Personal attributes were scored for creativity, delegation of authority and risk taking propensity. Creativity was measured on a five point scale. A score of 1 for the response ‘never’, 2 for ‘rarely’, 3 for ‘sometimes’, 4 for ‘often’ and 5 for ‘always’ was assigned. A total score was obtained by adding up individual scores of all the statements of creativity assessment. A minimum and maximum possible score is 5 and 25, respectively. Delegation of authority was measured on a five point scale. A score of 1 for the response ‘not at all’, 2 for ‘sometimes’, 3 for ‘frequently’ and 4 for ‘extensively’ was assigned. There are 4 statements to assess the level of delegation of authority of an entrepreneur. So the minimum and maximum possible score is 4 and 16, respectively. Risk taking propensity was measured on dichotomous scale. The scale consisted of five items. The scoring for ‘yes’ indicates high propensity to take risk and scoring for ‘no’ indicates lower propensity to take risk. Various demographic and socio-economic attributes were measured on a categorical scale.

5. Statistical Analysis:

Obtained data was analyzed by using following statistical techniques:
1. Descriptive statistics mean, standard deviation, Z test has been used to check significance differences between the observed and expected means.
2. Chi-square analysis has been used to ascertain the association among various socio economic, demographic attributes and entrepreneurial success.
3. Pearson’s product moment correlation has been used for correlation analysis.
4. To ascertain the predictive value of all independent variables for dependent variable i.e. entrepreneurial success, multiple regression analysis has been used.