CHAPTER III

METHODOLOGY AND PROFILE OF THE STUDY AREA

This chapter discusses the methodology adopted for the study. Further, it describes the profile of the study area.

3.1 METHODOLOGY

Designing a suitable methodology and selection of analytical tools are important for a meaningful analysis of any research problem. In this section, the methodology adopted for the present study has been described for. It includes a sample design, the period of study, the method for collection of data, and the method of analysis and tools of analysis used.

Sampling Design

In order to evaluate the performance of micro entrepreneurs in Thoothukudi District, nearly 6 per cent of the total sample micro units of micro entrepreneurs registered in District Industries Centre (DIC) were chosen. The chosen unit has been registered at least three years before undertaken i.e. at least before March 2009. The nature of micro entrepreneurs registered as on March 2009 were coir making, masala product manufacturing, palmleaf products, handicrafts, fishnet making, dry fish and
the like. For the purpose selecting the random sampling technique has been adopted to select 300 micro entrepreneurs from the list obtained from DIC, Thoothukudi district.

**Period of Study**

The field survey was conducted from September 2011 to March 2012 for the collection of primary data. The reference period of the survey was therefore from 2011 to 2012.

**Collection of Data**

Both primary and secondary data have been used for the present study. A reconnaissance survey was made of the selected respondents to get acquainted with the factors behind the start of an enterprise, problems the faced and the like. On the basis of the information gathered, a well designed pre-tested interview schedule was drafted and used in the field survey to collect primary data. Before undertaking the main survey, a tentative interview schedule was prepared and administrated to 25 micro entrepreneurs in order to test the validity of the interview schedule. The pilot study facilitated the removal of the ‘no-response’ and unwanted questions. The modified final schedule was prepared on this basis.
The selected micro entrepreneurs were contacted in person and the objectives of the study were clearly explained to them and their cooperation was ensured. The details regarding the general characteristics of the sample micro entrepreneurs, their family profile, income, saving, investment and the like relating to the overall objectives of the study were collected from the sample respondents through the direct personal interview method.

**Tools for Analysis**

Based on the nature of data and relevance of information required. The following statistical tools were used. For analysis of the data collected during the investigation

**Percentage Analysis**

The conventional percentage analysis has been carried out to fulfill the first objectives of the study.

**Personality Trait Index**

The Personality Trait Index has been applied to analyse the second objectives of the study.

**Scoring Technique**

In order to analyse the sources of inspiration, Scoring Technique has been used.
To fulfill the fourth objective, the following statistical tools have been employed.

**Chi-square test ($\chi^2$)**

Chi-square test is a non-parametric test and as such no rigid assumptions are necessary in respect of the type of population. The chi-square test in the present study has been used as a test of independence.

In order to examine the relationship between socio-economic profile and entrepreneurship, the chi-square test has been applied.

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

where,

- $\chi^2$ = chi-square value
- $O$ = Observed frequency
- $E$ = Expected Frequency

The chi-square value is compared with the table value to find out the association between the normal variables in the present study.
\[ F = \frac{\text{variance between the groups}}{\text{variance within groups}}. \]

F-ratio has been calculated and compared with the respective table values of F to analyse the significant differences among the groups regarding each variable.

**Factor Analysis**

In order to identify the factors that influence the starting of an enterprise, Factor Analytical Method has been adopted.

**Multiple Regression**

When a factor is dependent on more than one variable, a single analysis will not reveal the relationship. For this purpose, Multiple Regression technique has been used to reveal the existence of non-linear relationship between the dependent and independent variables which are in internal scales. Hence, the Log Linear Multiple Regression was applied to identify the variables (profile) which influence the entrepreneur’s involvement index of the following form.
\[ \log Y = \beta_0 + \beta_1 \log X_1 + \ldots + \beta_{13} \log X_{13} + u \]

where,

\[ Y = \text{Enterprise Involvement Index} \]
\[ X_1, \ldots, X_{13} = \text{Independent variables} \]
\[ \beta_0, \ldots, \beta_{13} = \text{Regression Co-efficient} \]
\[ \beta_0 = \text{Intercept or constant term.} \]
\[ u = \text{Error term,} \]

which are converted into log linear form.

\[ \log Y = \log \beta_0 + \beta_1 \log X_1 + \ldots + \beta_n \log X_n + u \]

**Index Preparation**

The index regarding personality, entrepreneurship, enterprise involvement are prepared on the basis of

\[ I = \frac{\sum_{i=1}^{n} S_i}{\sum_{i=1}^{n} M_{si}} \times 100 \]

where,

\[ I = \text{Index} \]
\[ S = \text{Score obtained} \]
\[ M_s = \text{Maximum score} \]
\[ i = 1 \ldots n \text{ number of variable included in the analysis} \]
Factor Analysis

The technique adopted to identify and analyse the factors influencing the entrepreneurs to manage the enterprise was Orthogonal Vaimax Rotations.

T-test

In order to examine the differences in mean scores between good and poor performance the T-test has been applied.
3.2 PROFILE OF THE STUDY AREA

This section provides a glimpse of the physical features, agro-climatic conditions, demographic features and infra-structural set up of the Thoothukudi district.

3.2.1 Thoothukudi District - Historical and Cultural Background

Thoothukudi was ruled over by the Pandya kings before European colonies occupied the place. During the freedom struggle, it was the birth place of many brave patriots. The darkness of British slavery was dispelled by the selfless sacrifice of these devoted patriots. Veerapandia Kattabomman with his undaunted fighting spirit, Bharathiar with his fiery, and inspiring poems of patriotism and V.O. Chidambaranar who soiled the Swedeshi ship against the British were among the many brave countrymen who valiantly fought the foreign rule. They made the soil of Thoothukudi proud and rich.

District at a Glance:

Thoothukudi ‘the Pearl City of India’ is the newly formed district formed by bifurcating Tirunelveli district into Tirunelveli district (the western portion) and Thoothukudi district (the eastern portion).
The Government of Tamil Nadu in its G.O. Ms.No.535/ Revenue Department dated 23.04.1986 ordered the formation of a new district viz.. Thoothukudi district. Thoothukudi district was inaugurated on 19.10.1986 by the chief minister of Tamil Nadu and started functioning as the 20th district of the state with effect from 20.10.1986 with its headquarters at Thoothukudi.

Thoothukudi district covers an extent of 4,621 sq.km in the south-eastern portion of Tamilnadu and it is almost rectangular in shape. It is bounded by Virudhunagar and Ramanathapuram districts in the north, Kanyakumari district in the south, the Gulf of Mannar in the east and Tirunelveli district in the west. The district his between 80-05' and 90 - 800 of the northern latitude and 770-05' and 780-25' of the eastern longitude.

**Physical features**

There are no high mountains in the district except for the red mounds or small hills are found in Tiruchendhur, Srivaikundam, Sathaankulam and Vijayaramarpuram. The stretch of land that tilts to the east in Srivaikundam is made fertile by the Thamiraparani river. This river flows through Punnaikayal and joins the Bay of Bengal. Malattar, Nambiaru, Vaippar and Manimuthaar are the other minor rivers flowing through this district.
Mineral Resources

Gypsum, Ilammanide, Monazide, Hyduim, limestones, corals from the adjoining islands and phosphate are some of its natural resources.

Agriculture and Irrigation

The main food crop in the district is paddy. Out of the total area of 4,50,954 hectares, 2,11,811 hectares have been brought under the cultivation of different crops, which work out to 47 per cent of the total area of the district. The important food crops in the district are paddy, cholam, cumbu, ragi, varagu, samai the chief commercial crops are cotton, Chilly, sugarcane, groundnut and banana. There are 80 PWD tanks with an ayacut of 7183 Ha, 453 M.I. tanks 52 system tanks with an ayacut, of 13,194 ha, 54 canals with 5466 ha as Ayacut, there are also 29,022 wells with 9473 electric motors and 1444 oil engines are used for irrigation purposes. River Thamirabarani, the life line of Tuticorin district is the main source for system tanks as well as for drinking and industrial purposes.

Fisheries

This district is an important coastal district having a vast coastal line of 160km and territorial water covering thousands of hectares. Fishing, next to agriculture, is an important occupation of the district. Tuticorin is a major
fishing centre. It is also considered to be the only pearl fishing centre in the whole of India. Besides, it is also noted for chunk fishing. Nearly 35000 MT of marine fish are produced per annum. There are 4195 vallams, 1448 catamarans and 475 mechanized fishing boats. Around 15,000 families are engaged in fishing.

**Forestry**

The area under forestry is 12724 hectares which occupies 2.77 per cent of the geographical area.

**Population**

The population of the district as per 2001 Census was 15,72,273, of which 7,66,823 were males and 8,05,450 females. The population density in the district is 315 per sq.kms against the state average of 428 per sq.kms. The percentage of scheduled caste population is 18.4 and that of scheduled tribe population is 0.2 per cent of total population. The percentage of urban population is 42.28 and that of rural population is 57.72 of the total population. The literacy percentage of male is 88.3 and female is 75.1. Total literacy percentage of this district is 81.5.
TABLE 3.1

URBAN POPULATION IN 2001 CENSUS

<table>
<thead>
<tr>
<th>Area</th>
<th>Females</th>
<th>Males</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>13,52,19,060</td>
<td>15,01,35,894</td>
<td>28,53,54,954</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>1,36,14,583</td>
<td>1,38,69,415</td>
<td>2,74,83,998</td>
</tr>
<tr>
<td>Thoothukudi District</td>
<td>3,37,204</td>
<td>3,27,569</td>
<td>8,05,450</td>
</tr>
</tbody>
</table>

Source: National Informatic Centre, Thoothukudi

From this Table it is clear that the total urban population of India is 28,53,54,954 with female population as 13,52,19,060. In Tamil Nadu female population is 1,36,14,583. Out of the total population of Tamilnadu, Thoothukudi district’s urban population is 8,05,450, and female population 3,37,204. From the Table we can say that female urban population in Thoothukudi district outnumbers the male population.

The given Table shows the literacy level in urban areas.
From this Table it is obviously clear that urban female literacy is 45.69 per cent of the total population of the urban literates in Tamil Nadu. At the same time the total urban literates in Thoothukudi district are 2.52 per cent of the total population in Tamilnadu. Of this, the female literacy is 1.21 per cent. From this Table, it is also very clear that female literacy level in Thoothukudi is lower than male literacy.

The following table shows the urban working population
TABLE 3.3

URBAN WORKERS TO TOTAL POPULATION - 2001 CENSUS

(in per cent)

<table>
<thead>
<tr>
<th>Area</th>
<th>Females</th>
<th>Males</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>11.60</td>
<td>50.90</td>
<td>32.20</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>18.42</td>
<td>56.37</td>
<td>37.59</td>
</tr>
<tr>
<td>Thoothukudi District</td>
<td>4.01</td>
<td>11.56</td>
<td>15.57</td>
</tr>
</tbody>
</table>

Source: National Informatic Centre, Thoothukudi

From Table, it is clear that the proportion of total urban workers to total population in India is 32.20 per cent. Of this 11.60 per cent are females. Out of 37.59 per cent of the workers in Tamil Nadu, 18.42 per cent are females. In Thoothukudi district out of the 15.57 per cent urban workers, 4.01 per cent are female urban workers.

From this Table it is clear that the percentage of female urban workers in Thoothukudi district is very low. This is because of the lack of employment opportunities for women.

Women Workforce in Thoothukudi District

The given Table shows the classification of female workers in Thoothukudi district. According to 2001 Census, workers were classified into main workers, marginal workers and non-workers. Out of the total main
workers of 5,84,738 female main workers are 1,89,228 and male main workers are 3,95,510. Out of 88,944 marginal workers, female workers are 54,068 and male workers are 34,876. Out of 8,92,061 non-workers, females are 5,58,360 and males are 3,33,701.

**TABLE 3.4**

**DETAILS OF AGRICULTURAL WORKERS IN THOOTHUKUDI DISTRICT - 2001**

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Workers details</th>
<th>Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Main workers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>3,95,510</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>1,89,228</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5,84,738</td>
</tr>
<tr>
<td>2.</td>
<td>Marginal workers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>34,876</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>54,068</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>88,944</td>
</tr>
<tr>
<td>3.</td>
<td>Non workers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>3,33,701</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5,58,360</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8,92,061</td>
</tr>
</tbody>
</table>

TABLE 3.5
NUMBER OF EMPLOYEES BY SOCIAL GROUP SEX IN THOOTHUKUDI DISTRICT

<table>
<thead>
<tr>
<th>SL. No</th>
<th>Social group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Other communities</td>
<td>2521</td>
<td>1350</td>
<td>3871</td>
<td>12.10</td>
</tr>
<tr>
<td>2.</td>
<td>B.C</td>
<td>10257</td>
<td>9832</td>
<td>20089</td>
<td>62.81</td>
</tr>
<tr>
<td>3.</td>
<td>M.B.C</td>
<td>1840</td>
<td>1393</td>
<td>3233</td>
<td>10.11</td>
</tr>
<tr>
<td>4.</td>
<td>S.C</td>
<td>2583</td>
<td>1983</td>
<td>4565</td>
<td>14.27</td>
</tr>
<tr>
<td>5.</td>
<td>S.T</td>
<td>141</td>
<td>85</td>
<td>226</td>
<td>0.71</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17342</td>
<td>14642</td>
<td>31984</td>
<td>100.00</td>
</tr>
</tbody>
</table>


The number of employees by social group and sex in Thoothukudi district is shown in the above Table. From this Table, we can say that BC group of people are more in Thoothukudi district and also female employees under BC social group are greater than the other social groups.

Industries

The district constitutes 70 per cent of the total salt production of the State and meets 30 per cent requirement of our country. There are two industrial estates one at Kovilpatti with 11 units and the other at Thoothukudi with 20 units. The former is managed by SIDCO and the latter by SIPCOT. Small scale industries such as match industries, food-based and metal based industries are generally constituted in Kovilpatti and Thoothukudi taluks.
There are 2200 and above small scale industries registered in the district and about 12 major industries. These are engaged in the production of cotton and stable yarn, caustic soda, PVC resin, fertilizers, soda ash, carbon dioxide gas in liquid form, etc. The important major industries are SPIC, TAC, Dharangadhara Chemical Works, Loyal Textiles Ltd., Madura Coats Ltd., Sterlite Copper Industries, Kilburn Chemicals, Ramesh Flowers, Nila Sea Foods, Deva and Co. and Transworld Granite Industries.

The public sector undertakings are the Thoothukudi Thermal Power Station Unit, Heavy Water Plant (HWP) and Port Trust. The District Industries Centre and the Tamil Nadu Industrial Investment Corporation are catering to the needs of the small and large scale industries.

DCW, one of the earliest industrial units of Tuticorin District, SPIC one of the Asia's biggest fertilizer plants, coats viyella earliest industrial unit are in Tuticorin. There are number of spinning mills in Kovilpatti, Pudur and Vilathikulam Blocks, Sterlite copper smelter factory at SIPCOT, seafood units apart from number of tiny readymade garment factories at Puthiamputhur, Match factories of various types around Kovilpatti area and dry flower units adorn the industrial map of the district, Macrone, a bakery product is the specially from this district.
The Government is also encouraging unemployed youth and others to start industries by providing financial assistance and technical guidance.

**Topography**

The river Tambirabarani flows through this district. The area under the river basin within the district is 78,698.8 hectares. According to topography, the district can be divided into three regions. The northern part consists of black soil, mostly dependent on seasonal rainfall for agriculture; the central part is irrigated by water flow from the Western Ghats; and the southern part is red loam area. The normal rainfall is 662.mm., which is less than the state normal of 1009.1mm.

**Administration**

Tuticorin district has 8 taluks under 3 revenue divisions of Tuticorin, Kovilpatti and Tiruchendur, Tuticorin district comprises of 12 development blocks. There are 20 Town Panchayats, 408 villages panchayats and 2 municipalities namely Tuticorin and Kovilpatti, Tuticorin district is surrounded by Virudhunagar district in North, Tirunelveli in West and by Bay of Bengal in South and East.

Tuticorin district is one of the major salt producing place in the south. There are about 2208 salt producing units in the district and achieved a total
production of 20 lakh tonnes of salt and contributes 70 per cent of total salt production in Tamil Nadu and meets 30 per cent requirements of the country. More than 1000 units are engaged in iodised salt production. 4 refined free flow iodised salt manufacturing units are also functioning and produces 70,000 MT per annum. Total salt pan extent in the district in 22,949 acres.

Tuticorin port is the 10th Major port of the country functioning with seven cargo berths and three bulk jetties. Tuticorin port is situated at latitude 8 degrees 45' N and Longitude 78 degree 13' E on the East coast of India about 540 km south west of Chennai. The port is well sheltered from the fury of storms and cyclonic winds. It is strategically located very close to the major international sea routes. One of the main problems with the port is the low depaths, which was recently improved by the dredging project at a cost of Rs.222 crores to cater the needs of vessels having draught upto 10.7 metres. Port has adequate space and godowns. Tuticorin port is the first Indian port to win the quality certificate under ISO 9002.

Educational Institutions

Thoothukudi has one Maritime Academy, two B.Ed Colleges, 10 Arts Colleges, one Medical College, six Polytechnic Colleges, one Agricultural College, one Fisheries College, eight I.T.I Schools, 97 Higher Secondary
Schools, 73 High Schools, 284 Middle Schools, 1076 Primary Schools and many education oriented courses.

**Health Department**

Thoothukudi has 19 Government hospitals, one Medical College hospital and 249 health welfare departments.

**Public Welfare Department**

For the benefit of the public, there are 164 banks. To maintain law and order there are 44 police stations. Of this, there are two women police stations remaining under the direct control of superintendent of police and 62 Theatres for entertainment.

**Transport and Communication**

The district has a road length of 2310km, comprising of 1232 km of metallic roads, 665 kms. of non-metallic roads and 413 km of kutcha roads.

The district is served by 413 post offices covering 3270 persons per post office. There are 61 telegraphic offices in the district which serve an average population of 22,140 per office. Similarly, there is one radio set for every 31 persons in the district.
Welfare Schemes for Women

Many government schemes like Tamilnadu village women’s development programme are implemented successfully. Under this scheme, women at the age group of 21-60 below the poverty line are organised in self-help groups with 12 to 20 members each. The government, bank and non-government institutions help these women to rise in socio-economic levels and education.

By giving sound exercise to these self-help groups an awareness and opportunity is being created for them.

Weekly savings schemes among the groups enable the members belonging to the same, to procure loans at a low interest, thus protecting them from the exploitation of money-lenders.

The governments through several schemes provide opportunities to increase the financial position of the people. Through nationalised banks and other government organizations like Indira Mahila Goshi, loans for lesser interest are given. The women are able to do business and thus increase their income.
To raise in literacy and to improve education, the right coaching is given to these rural women. So they are able to get rid of society imposed controls and get equal rights.

The self-help organisations work for gradual emancipation from social tyranny, apart from economic stability, wider and higher literacy, health welfare and attainment of desirable cultural behaviour.