CHAPTER IV

CONCEPTS AND METHODOLOGY
CHAPTER - IV

ANALYSIS OF GENERAL BACKGROUND AND BEHAVIOURAL PATTERN OF ENTREPRENEURS

Operational Definitions

Behavioural economics is closely related to fields which apply scientific research on humans and social, cognitive and emotional biases to understand better the economic decisions and how they affect market prices, returns and the allocation of resources. Behavioural models typically integrate insights from psychology with neo-classical economic theory.

There are three main themes in behavioural finance and economics (Shefrin, 2002). They are:

- **Heuristics:** People often make decisions based on approximate rules of thumb, not strictly on rational analysis.

- **Framing:** The way a problem or decision is presented to the decision maker will affect their action.

- **Market inefficiencies:** There are explanations for observed market outcomes that are contrary to rational expectations and market efficiency. These include mispricings, non-rational decision making, and return anomalies.

Entrepreneur

The term entrepreneur applies to someone who establishes a new entity to offer a new or existing product or service into a new or existing market, whether for a profit or non-for-profit outcome. Business entrepreneurs often have strong beliefs
about a market opportunity and are willing to accept a high level of personal, professional or financial risk to pursue that opportunity.

**Intrapreneurs**

Intrapreneurs are not necessarily the inventors of new products or services but are the persons who can turn ideas or prototypes into profitable realities. They are people behind a product or service. They are team builders with a commitment and a strong drive to see their ideas become a reality.

**Entrepreneurial behaviour**

It refers to grasping opportunity, taking initiative, solving problems creatively, managing autonomously, taking responsibility for and ownership of things, seeing things through, networking effectively to manage interdependence, putting things together creatively and using judgement to take calculated risk.

**The entrepreneurial mindset**

The entrepreneurial mindset consists of the attitudes, state of mind, and personal experience of an entrepreneur and/or junior entrepreneur, like competitiveness, market-drive, self-confidence, risk-taking.

**Locus of control**

Locus of control refers to an individual's generalized expectations concerning where control over subsequent events resides. In other words, who or what is responsible for what happens. People tend to ascribe their chances of future successes or failures either to internal or external causes. Persons with an internal
locus of control see themselves as responsible for the outcomes of their own actions. Someone with an external locus of control, on the other hand, sees environmental causes and situational factors as more important than internal ones.

**Industrial estate**

The concept of the industrial estate emerged in industrialized countries towards the end of the 19th century as a means to promote, plan and manage industrial development. The first estates were established early in the 20th century in the United Kingdom and USA. It is, "a large tract of land, subdivided and developed for the use of several firms simultaneously, distinguished by its shareable infrastructure and the close proximity of firms".

**Small and Medium Enterprises (SMEs)**

An industrial undertaking in which investment does not exceed Rs.1 crore is defined as small-scale units. The investment size of medium scale unit is between Rs.1 crore and Rs.10 crores.

**Ancillary Industries**

Undertakings engaged in manufacturing spare parts, components, hydro chemicals, boiler shell, toolings, etc. on getting orders from the parent industry.

**Sub contracting**

Sub contracting units are similar to ancillaries, but unlike ancillary, which have assured work load from parental units, these sub-contracting units do not have assured work assignment. They have no fixed tie-up arrangement.
**First Generation Entrepreneur**

First generation entrepreneur or new entrepreneur is one who did not have any of his ancestors in the field of entrepreneurship (industry and trade activities) and he is the first to venture into the field.

**Sole proprietorship**

A single person who owns his capital as he uses, takes the decisions, which his business requires, uses his own skill and intelligence in the management of its affairs and is liable for the results of its operation.

**Partnership**

Partnership is an industrial organisation formed by a contractual agreement between two or more individuals governed by Partnership Act.

**Private Limited Company**

A private company is a company which can be registered by two or more persons by its Article of Association, of the Company Law of Govt. of India it (a) limits the number of its members to 50, (b) places restriction on the transfer of its shares from one holder to another and (c) no invitation is issued to the members of public to subscribe to its shares and debentures.

**Public Limited Company**

A public limited company is a company with membership of which is pen to general public. The minimum number required to form it is seven but there is no limit to the maximum number.
**Steel fabrication**

It is the process of making raw steel into finished product by involving various processes namely marking, cutting, welding, machining and painting.

**Conversion**

Job conversion refers to the mode of business by which the materials and design are supplied by the clients.

**Own materials**

It refers to the business mode by which the job is completed with the own materials of vendors.

'**Cluster’ concept** is defined as "geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region".

**Cluster advantages**

a) Firms in the cluster operate more efficiently in sourcing inputs; accessing information, technology and needed institutions.

b) Clusters attract talented people from other areas enabling the firms to have access to a pool of specialized and experienced employees. This lowers their search and transaction costs in recruitment.

c) Clusters provide scope for the accumulation of extensive market, technical and other information, useful to members. Community ties and personal relations foster trust and facilitate the flow of information.
d) Buying from a cluster is more attractive to both domestic and overseas buyers. Visiting buyers can see many vendors in a single trip. The scope to contact alternative buyers lowers the perceived risk of the buyers.

e) Spending on specialised infrastructure by the government and public institutions also enhances the productivity of the cluster firms.

f) The participants in a cluster recognizing the potential for collective benefit make collective investments in training programmes, infrastructure, quality centres, etc. These effects also contribute to increase productivity.

**Expansion and Diversification**

Expansion is one of the forms of internal growth of business. It means enlargement or increase in the same line of activity. Expansion is a natural growth of business enterprise taking place in course of time. In case of expansion, the enterprise grows on its own without joining hands with any other enterprise. There are three common forms of business expansion, namely, expansion through market penetration, expansion through market development and expansion through product development and modification.

Diversification is evolved to overcome the limitations of business growth through expansion. The need for adding new products to the existing product line is called diversification. The new lines of business may be related to the current business or may be quite unrelated. If the newly added business makes use of the firms existing technology, production facilities or distribution channels, it is called as related diversification. Related diversification may take two forms backward integration or forward integration. Economies of scope often result from a related
diversification strategy and may even be termed economies of diversification. This strategy is operationalised when a firm builds upon or extends existing capabilities resources or areas of expertise for greater competitiveness. Some companies expand the business into unrelated industries. This is known as unrelated or conglomerate diversification.

**Lateral Diversification**

When a firm produces different goods which diverge from the same process of source, or which are used as materials for the same process or market.

**Conglomerate Diversification**

In this type of diversification, the products need not to have diverged from the same product or source, or converge at the same process or market as is the situation in the case of lateral diversification. The products will be quite unrelated.

**Vertical Integration**

Vertical integration is the extent to which an organisation controls its inputs and the distribution of its products and services. There are two sorts of vertical integration – backward integration and forward integration.

A firm's control of its inputs or supplies is known as backward integration. A firm's control of its distribution is known as forward integration.

**Economies of Scale**

It refers to the decreased per unit cost as output increases. That is, the initial investment of capital is spread over an increasing number of units of output and
therefore, the marginal cost of producing a good or service decreases as production increases.

**Economies of Scope**

An economic theory states that the average cost of production decreases as a result of increasing the number of different goods produced. Cost advantages result when firms provide a variety of products rather than specialise in the production or delivery of a single output.

**Entrepreneurship Development Programme (EDP)**

This is a programme designed to help an individual in strengthening his entrepreneurial motive and acquiring skills and capabilities necessary for playing his entrepreneurial role effectively. EDP is not merely a training programme but also a process of developing the motivation, knowledge and skills of the potential entrepreneurs, assisting them develop their own ventures as a sequel to entrepreneurial action.

**Wind energy**

Wind is the natural movement of air across the land or sea. Wind is caused by uneven heating and cooling of the earth's surface and by the earth's rotation. Land and water areas absorb and release different amount of heat received from the sun. As warm air rises, cool air rushes in to take its place, causing local winds. The rotation of the earth changes the direction of the flow of air which is a source of energy.
Economics of off shore wind power

Unlike the on shore projects, the cost of wind turbine itself forms only about 45 to 50% of the project cost. The evacuation facilities will range between 20 to 25% depending on the distance from the shore and as to whether an AC or DC bus is employed. DC link is expected to be cheaper when the distances to the shore are larger. Foundations again are expected to cost less on a per kW basis for larger wind turbines as the water depth goes up. Foundation costs will be in the range of 15 to 25% of the project cost. Project management and other expenditure will be at about 5%.

Wind Energy: Origin and Growth

One of the first mentions of windmills can be found at the beginning of the Asian civilization of China, Tibet, India, Afghanistan and Persia (7th century). Slowly the knowledge spread to Europe where it got refined and later as the Europeans colonized the world, the concept of wind energy too started to spread its wings.
The story of wind turbines for the purpose of electricity generation started in 1888 with the invention of the Brush machine built by Charles F. Brush. The Brush machine had a rotor diameter of 17m and 144 rotor blades made of cedar wood. Although the turbine was gigantic, the efficiency was quite low.

Later in 1891, Dane Poul La Cour, developed the wind machine with fewer rotter blades which rotated faster. It incorporated the aerodynamic design principles used in the European tower mills and was more efficient. The use of wind turbine slowly started spreading in Denmark covering about 3 per cent of the electricity consumption. Before long, the cheaper and more reliable fossil fuel steam plants overthrew the mills. In 1942 came the three bladed Smidth machine. It was a part of the wind-diesel system that provided the electricity supply on the island of Bogo. In 1950, this machine also played significant role in the wind energy study programme in Denmark. In 1951, the DC generator was replaced with a 35 KW asynchronous AC (alternating current) generator, thus becoming the second wind turbine to generate AC.

In 1956-57, Juul built a 200KW Gedser wind turbine for the electricity company SEAS at Gedser coast in Southern part of Denmark. This three bladed upwind turbine was a revolutionary design for the modern wind turbines. This machine was also equipped with the aerodynamic tip brakes that would shut down the turbine in case of over speed. But this flight of wind energy was short lived. The development of steam power, and society’s increasing dependence on fossil fuels started having its toll on the wind energy development. By the year 1959 most of the major wind generators were shut down.
It was not until the 1970’s that the energy crisis, environmental pollution by fossil fuels and the increasing popularity of renewal engineers, again brought wind energy into focus, and the drying wind energy sector got a breath of fresh air. Following the oil crisis in 1973, many countries including Denmark, Germany, Sweden, UK and USA started manufacturing large turbines. But these turbines became very expensive which went against the development of wind power.

At the time Christian Risager, a carpenter, built a small 22 KW turbine using economical components with Gedser. This Rissager turbine soon became a success with many private households around Denmark, and an inspiration for the future turbine designs. The 55 KW generations of wind turbines that were developed in 1980-81 became the industrial and technological breakthrough for modern wind turbines. The cost per kilowatt hour (kwh) of electricity dropped by about 50 per cent with the appearance of this generation of wind turbines making the wind industry much more professionalised. Wind energy is the fastest growing energy source in the world. Today wind energy is being extracted from both onshore and offshore wind farms. Offshore wind farms are especially promising in countries with high population density, where finding suitable sites for the wind farms is a daunting task.

**Global Scenario**

The present world wind power scenario with fast increasing installed capacity, crossing 63,000 MW by March 2006, is characterized by adoption of technological innovations based on proven design concept and up-scaling of the existing ratings rather than introduction of truly new products. The year 2005 was another record year for the worldwide wind energy utilisation. The wind energy boom includes more
and more countries, with nearly 59,000 MW installed all over the world by the end of December 2005. Worldwide 11531 MW were added in 2005, after 8300 MW of additional capacity in the year 2004 and 8100 MW in 2003. The global rate of growth increased to 24% in the year 2005, which was 21% in 2004. With this growth rate continuing, it is expected about 80,000 MW to be installed worldwide by the year 2010. Today wind energy contributes around 1% to the total global electricity consumption generation with some countries and regions reaching as much as 20% or more. Eleven countries achieved an installed capacity of more than 1000 MW, seven of them in Europe (Germany, Spain, Denmark, Italy, UK, Netherlands, Portugal), three in Asia (India, China and Japan) and the USA.

Europe remains at the number one position in terms of overall capacity (40,932 MW) as well as additional capacity. Both Germany (18,428 MW) and Spain (10,027 MW) continue to remain at number one and two position in terms of overall installed capacity. Portugal and France, both having an effective legislation in place, achieved the highest growth rate in Europe in 2005 and doubled the installed capacity to 1022 MW and 757 MW respectively. Only 4 MW were added in Denmark. The US, after the extension of the production tax credit, has become the international number one in terms of new installed capacity, adding 2424 MW in 2005. In terms of overall capacity, the US with 9149 MW still ranks third. In India more than 1100 MW was added in the year 2005. The total capacity addition in Asia was 2263 MW. The total installed capacity reached 7022 MW in Asia. In addition to India, China is also emerging as a prominent country in Asia. Nearly 1200 MW have been installed in China so far.
### Table - 4.1
Worldwide wind power installed capacity

(As on 31st March 2006)

<table>
<thead>
<tr>
<th>Country</th>
<th>Capacity (MW)</th>
<th>Country</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>19140</td>
<td>Turkey</td>
<td>49</td>
</tr>
<tr>
<td>Spain</td>
<td>10728</td>
<td>Iran</td>
<td>47</td>
</tr>
<tr>
<td>USA</td>
<td>9600</td>
<td>Luxembourg</td>
<td>35</td>
</tr>
<tr>
<td>India</td>
<td>5341</td>
<td>Estonia</td>
<td>32</td>
</tr>
<tr>
<td>Denmark</td>
<td>3138</td>
<td>Czech Republic</td>
<td>28</td>
</tr>
<tr>
<td>Italy</td>
<td>1820</td>
<td>Argentina</td>
<td>26</td>
</tr>
<tr>
<td>UK</td>
<td>1695</td>
<td>Latvia</td>
<td>25</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1394</td>
<td>Philippines</td>
<td>25</td>
</tr>
<tr>
<td>China</td>
<td>1260</td>
<td>Pacific Islands</td>
<td>24</td>
</tr>
<tr>
<td>Portugal</td>
<td>1260</td>
<td>Columbia</td>
<td>20</td>
</tr>
<tr>
<td>Japan</td>
<td>1078</td>
<td>Tunisia</td>
<td>20</td>
</tr>
<tr>
<td>Austria</td>
<td>961</td>
<td>Croatia</td>
<td>17</td>
</tr>
<tr>
<td>Canada</td>
<td>943</td>
<td>Hungary</td>
<td>14</td>
</tr>
<tr>
<td>France</td>
<td>908</td>
<td>Switzerland</td>
<td>12</td>
</tr>
<tr>
<td>Australia</td>
<td>746</td>
<td>Reunion (France)</td>
<td>10</td>
</tr>
<tr>
<td>Greece</td>
<td>590</td>
<td>Israel</td>
<td>8</td>
</tr>
<tr>
<td>Ireland</td>
<td>525</td>
<td>Russia</td>
<td>7</td>
</tr>
<tr>
<td>Sweden</td>
<td>504</td>
<td>Lithuania</td>
<td>6</td>
</tr>
<tr>
<td>Norway</td>
<td>281</td>
<td>Cuba</td>
<td>5</td>
</tr>
<tr>
<td>New Zealand</td>
<td>168</td>
<td>Mexico</td>
<td>5</td>
</tr>
<tr>
<td>Belgium</td>
<td>167</td>
<td>Slovakia</td>
<td>5</td>
</tr>
<tr>
<td>Egypt</td>
<td>157</td>
<td>Cape Verde</td>
<td>3</td>
</tr>
<tr>
<td>South Korea</td>
<td>119</td>
<td>South Africa</td>
<td>3</td>
</tr>
<tr>
<td>Poland</td>
<td>108</td>
<td>Sri Lanka</td>
<td>3</td>
</tr>
<tr>
<td>Taiwan</td>
<td>106</td>
<td>Chile</td>
<td>2</td>
</tr>
<tr>
<td>Brazil</td>
<td>97</td>
<td>Jordan</td>
<td>2</td>
</tr>
<tr>
<td>Finland</td>
<td>83</td>
<td>Bangladesh</td>
<td>1</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>71</td>
<td>Bulgaria</td>
<td>1</td>
</tr>
<tr>
<td>Ukraine</td>
<td>70</td>
<td>Peru</td>
<td>1</td>
</tr>
<tr>
<td>Morocco</td>
<td>64</td>
<td>Romania</td>
<td>1</td>
</tr>
<tr>
<td>Caribbean</td>
<td>57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Capacity (MW)** 63,616

*Source: Wind Power Monthly July 2006*
Wind energy in India: Recent trends

Among the different renewable energy sources, wind energy is currently making a significant contribution to the installed capacity of power generation, and is emerging as a competitive option to fossil fuel based power generation. The wind power programme covers research and development, survey and assessment of wind resources, implementation of demonstration and private sector project and promotional policies. India, with a wind power installed capacity in excess of 5340 MW, ranks fourth in the world after Germany, Spain and USA. The year 1983-84 towards the end of the Sixth Plan, witnessed the commencement of wind power programme in India.

A wind power capacity of 1746 MW was added in India during the fiscal 2005-06, ending March 31, 2006. The 48% annual increase in the cumulative capacity was the highest achieved so far in this sector in the country. Almost half of this capacity addition came up in Tamil Nadu. There was strong growth in
Maharashtra with a capacity addition of 545 MW, followed by 174 MW in Karnataka. In Maharashtra the total capacity has crossed 1000 MW. The aggregate installed capacity in various States started at 5423 MW at the end of June, 2006. The total generation from wind power projects since inception has reached 27 billion units. In an interesting development, in response to an SOS from Delhi, Rajasthan offered to feed 250 – 300 MW of electricity to Delhi from its wind turbines, which generate at peak capacity in summer when Delhi faces a power crunch.

Tamil Nadu continues to retain its lead with a total capacity of nearly 2000 MW of which 65% goes for captive consumption. The problem of the wind turbines being asked to back down during the peak windy season on account of evacuation limitations continues to affect the viability of wind generation in the State.

Table - 4.2

<table>
<thead>
<tr>
<th>State</th>
<th>Gross Potential (MW)</th>
<th>Technical Potential (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>8275</td>
<td>2110</td>
</tr>
<tr>
<td>Gujarat</td>
<td>9675</td>
<td>1900</td>
</tr>
<tr>
<td>Karnataka</td>
<td>6620</td>
<td>1310</td>
</tr>
<tr>
<td>Kerala</td>
<td>875</td>
<td>610</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>5500</td>
<td>1050</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>3650</td>
<td>3060</td>
</tr>
<tr>
<td>Orissa</td>
<td>1700</td>
<td>1085</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>5400</td>
<td>1050</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>3050</td>
<td>2150</td>
</tr>
<tr>
<td>West Bengal</td>
<td>450</td>
<td>450</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45195</strong></td>
<td><strong>14775</strong></td>
</tr>
</tbody>
</table>

Source: MNES
Notes: (i) Gross potential is based on assuming 1% of land availability for wind power generation in potential areas.
(ii) Technical potential is based on assuming 20% grid penetration as on 31.03.2005.
Figure 4.3
Wind power development in India

Year

Installed Capacity (MW)
0 1000 2000 3000 4000 5000 6000

3 5 7 10 32 37 41 54 115 351 733 902 968 1024 1167 1340 1626 1870 2483 3596 5341
Methodology
Method of Sampling and Sample size

The study is based on both primary and secondary data. A sample size of 30 units, accounting for more than one-fourth of the population was considered for the present study. Simple random sampling method was applied and the data were collected through pre-tested enquiry schedules and observation methods from the constituent firms.

Primary Data Base

The primary data have been collected from the sample entrepreneurs of BHELSIA fabrication member units in Tiruchirappalli district of Tamil Nadu. There were 133 BHELSIA member units in Thuvakudi, Tiruverambur, Ariyamangalam, Mathur and other industrial estates; among them 112 units were found to be located in Tiruchirappalli district.

In order to improve the validity and reliability of the enquiry schedule, a pilot study was conducted to collect the primary data pertaining to general information, business behaviour and various diversification aspects. On the basis of responses and interactions, a revised enquiry schedule was prepared.

Secondary Data Base

The available information on the member units was collected from the office of BHELSIA. The secondary data were collected from the various official reports of the government and private agencies including the offices of BIDAS, TIDITSSIA, SIDCO, Ariyamangalam. Relevant information were also collected from the various

Reference Period

The present study pertains to the various aspects of business undertaken by the sample units with reference to fabrication work. Data relating to their business turnover for a period of five years from 2001-2002 to 2005-2006 has been analysed. For the time series data for the above period, price deflators were employed on the basis of index of wholesale prices with respect to iron, steel and ferrous alloys with base year 1993-1994. The actual fieldwork for collecting the necessary information from the sample units was conducted during 2005-2006.

Tools of analysis

The statistical tools namely, weighted averages, regression analysis, trend analysis, Garrett’s ranking technique, analysis of variance (ANOVA), factor analysis, Friedman technique and paired t-test have been used to analyse the data.

Frame work of analysis

Weighted average method on five point rating scale was applied to identify the most crucial perceived entrepreneurial trait, the entrepreneurial perceptions on locus of control and to obtain rating score of various entrepreneurial responses to determine the level of achievement motivation. The technique of regression analysis was used to estimate the impact of additional investment on turnover for both diversified and non-diversified units. For time series data, trend analysis was applied for the turnover details with respect to BHEL and non BHEL units. Garret’s ranking technique is
applied to identify and rank the factors which motivate and facilitate the entrepreneurs’ start up. Factor analysis was used to determine the responses to several of the statements relating to issue of locus of control are significantly correlated. ANOVA technique was used for comparing the constraints faced by the respondents of different forms of organisation. Friedman’s test, a non-parametric test has been applied for testing if there is significant difference in ranking the various items of knowledge updating factors of entrepreneurship. Paired t-test has been applied to determine whether there is a significance difference between the age of conception of idea and the age of inception of enterprise.

INSTITUTIONAL SET-UP

In order to accelerate the development of small industries, the Government at the Central and State levels have set up a number of development agencies / institutions which undertake promotional activities aiming at facilitating industrial development.

1 Tamil Nadu Industrial Investment Corporation (TIIC)

TIIC is a premier financial institution incorporated in 1949 as a banking company (exempted from Banking Regulations Act) under the Companies Act, to foster industrial development of Tamil Nadu. It provides financial assistance to tiny / small / medium / large scale industrial units, professionals and transport vehicle operators. All eligible small scale units including tiny units, whose project outlay (excluding working capital margin) is within Rs.200.00 lakhs would be eligible for both term loan and working capital assistance under the scheme.
**General Schemes**

General Term Loan Scheme: Under the general scheme, term loan assistance is provided for tiny / small / medium / large industrial units to set up new industries and for expansion / modernisation / diversification of the existing units.

Loans to Medical Services: The Corporation provides assistance for construction of nursing homes, and purchase of electro medical equipments, in all areas including metropolitan / corporation areas with a minimum bed strength of 10 numbers.

Financial assistance is considered for setting up of hotels / motels / restaurants in order to promote tourism and also for expansion and renovation of the existing hotels; The scheme for qualified professionals is intended for professionals to set up for the first time their professional practice / consultancy ventures, for purchase of land, building, furniture, fixtures and equipments related to profession. Assistance for acquiring additional equipment for their practice for existing professional firms will also be considered; Setting up of computer training institute to set up computer training institute; Providing support to SSI sector in marketing their products; Assistance is given for purchase and installation of power generating units for captive power consumption of the individual units; Providing warehouse / storage facility predominantly for storing goods manufactured by SSI units thereby providing a necessary infrastructural facility to this sector; Providing financial assistance for construction of marriage halls / conventional centres / community halls; Under Mahila Udhayam Nidhi Scheme, women entrepreneurs can avail themselves of assistance to set up new / existing projects if the project cost does not exceed Rs.10.00 lakhs.
TICC has conducted over 500 training programmes, seminars, and workshops in major cities and towns in India addressed to corporate, businesspersons, executives, financial institutions, banks, and development agencies.

**Entrepreneurship Development Programmes (EDPs)**

It has played a catalytic role in the development of entrepreneurs in a number of ways. It has conducted more than 500 training programmes in Tamilnadu such as:

- Entrepreneurship development programmes for science & technology graduates, women, ex-servicemen, PMRY beneficiaries, and voluntary retired persons.
- Entrepreneurship development programmes on renewable energy technologies.
- Entrepreneurship development programmes for women self help groups (SHGs).
- Income generation training programme for urban slum dwellers and fishermen.
- Skill-cum-technology up-gradation programmes in readymade garments / apparels, leather, plastics, handicrafts, and gem cutting.
- Training programmes in medicinal and aromatic plants
- Manpower development in emerging areas

II Industrial and Technical Consultancy Organisation of Tamilnadu Limited (ITCOT)

Industrial and Technical Consultancy Organisation of Tamilnadu Limited (ITCOT), was incorporated as a company under the Companies Act, 1956, on 17th July 1979 as a joint venture of leading financial institutions, State Development Corporations, and Commercial Banks. The name of the company was changed to ITCOT Consultancy and Services Ltd. with effect from 4th October 2004 to offer
services as an adjunct to consultancy. The company still continues to be known by its popular name of ITCOT.

ITCOT conducts seminars on topics of contemporary industry and business topics regularly to promote investment ideas among banks, financial institutions, research institutions, corporate, entrepreneurs, equipment suppliers, and consultants. A number of seminars have been conducted in different centres in India on wide ranging topics namely, project financing and appraisal, non performing assets (NPAs), opportunities in insurance industry, opportunities in herbal industry, opportunities in ITES, opportunities in call centre business, opportunities in multiplex business.

In addition, business meets provide opportunities for one-to-one interaction among participants to facilitate seller-buyer interaction, explore investment and business opportunities, to enable technology transfer or tie-up, to select the right plant and equipment, to evolve market entry strategies, and so on. These events are organized for the benefit of producers, sellers, buyers, exporters, importers, technology providers, equipment suppliers, consultants, institutions, and such other.

III Small Industries Services Institute (SISI)

Small Industries Services Institute (SISI) Madras provides a comprehensive range of services to the small sale industrial sector in Tamil Nadu in terms of technical assistance, economic information services, provision of workshop facilities, training and other general consultancy services. The activities of SISI Madras cover the whole of Tamilnadu and the union territory of Pondicherry. It has two branches of SISIs at Coimbatore and Tuticorin and one Extension Centre at Pondicherry. In
addition to the above, there is a Central Footwear Training Centre at Madras and one
electric Motor Testing Laboratory at Coimbatore functioning under the jurisdiction of
SISI Madras.

Training

Entrepreneurship Development Programmes

SISI Madras and its subordinate offices conducted 33 Entrepreneurship Development Programmes at various places in Tamilnadu and Pondicherry in 1998-99, 1006 persons were trained in these courses.

MDP Courses

Management Development Programme courses include training on various aspects like marketing, marketing management and market research, salesmanship, hotel management and catering, quality control, marketing service and demand analysis and financial management.

Ancillary development / Marketing & exports

In the area of ancillary development in Tamil Nadu, the Institute conducted Vendor Development Programme during the year 1996-97, 125 units were NSIC under the Government Stores Purchases Programme in 1996-97.

Economic investigation

State profiles for the Union Territory of Pondicherry and Tamil Nadu were prepared and Techno Economic surveys of four districts in Tamilnadu were carried out to highlight the potential for new SSI units during the year 1995-96. A detailed market survey report was also prepared. 4 District Industrial Potential Surveys were
conducted for the districts of Kanyakumari, Thanjavur, Nilgiris, Yanam region. Apart from this 26 project profiles were prepared and 26 were updated during the year 1995-96.

Assistance to DICs

SISI assists the District Industries Centres in Tamil Nadu in the following activities:

(i) Selection of candidates under SEEUY scheme by serving as a member in the Task Force Committee meetings convened at various districts.

(ii) Participating in the Entrepreneurship Development Programmes and Industrial Motivation campaigns conducted in the districts by the DICs.

(iii) Dissemination of economic and technical information in the various DIC meetings for the benefit of potential entrepreneurs.

(iv) Assistance to DIC officials in capacity assessments and SSI unit’s participation in Central Govt. Stores Purchase Programme.

(v) Conducting Buyer-Seller meets in collaboration with DICs for the development of ancillaries.

(vi) Supply of project profiles and other techno-economic information to the DICs in addition to other ad hoc information from time to time.

(vii) Conducting census-cum-sample survey along with DIC in respect of registered units in each district.
**Assistance to SC/ST/Women/Weaker Sections**

In all the EDPs, skill development programmes, training programme for SEEUY beneficiaries, etc. conducted by SISI, preference is given to SC/ST/Women and other weaker sections for participating in the programme.

The Institute has been conducting EDPs of one week, one month and two months’ duration, exclusively for women entrepreneurs for setting up small scale units in areas like simple chemicals, food processing and readymade garments. As a follow-up measure, the applications of successful entrepreneurs belonging to the above categories are being pursued with the banks / financial institutions for getting financial assistance.

**IV Tamilnadu Small Industries Development Corporation Limited (TANSIDCO)**

Tamilnadu Small Industries Development Corporation Limited (TANSIDCO), an undertaking of Government of Tamilnadu, functions with the specific objective of playing catalytic role in the promotion and development of Small Scale Industries and hastening the industrial dispersal throughout Tamilnadu.

The key areas of TANSIDCO’s activities are as follows:

**Development of industrial estates**

TANSIDCO develops and maintains industrial estates in potential growth centres with necessary infrastructure and provides the following facilities to the entrepreneurs for setting up industries:

a) Work sheds of standard size [2000 sq.ft. in a land extent of 0.250 acre].

b) Developed plots in sizes ranging from 0.250 to 1.000 acre or above.
c) Tiny plots in sizes 5 cents to 15 cents for the benefit of tiny industries.

d) Modules in sizes of 500 sq.ft., 1000 sq.ft. & 1500 sq.ft., in multistorey complexes at Guindy, Chennai for electronic industrial units and garment industrial units.

So far 74 industrial estates have been developed with 4240 work sheds and 4683 developed plots for tiny sector, 1841 tiny sheds in sizes ranging from 200 sq.ft to 600 sq.ft were constructed and allotted.

**Facilities provided in the industrial estates**

- All basic infrastructure facilities like roads, streetlights, water supply, drainage, sewerage connection etc., have been provided.
- TNEB sub-station for giving power supply to the units is provided in industrial estates.
- Canteen, banks, post and telegraph office, telephone exchange, police out post, fire stations, communication centre, parking space, parks, hospital with first aid post, common creche for children, common space for association have also been provided in the estates.

V District Industries Centres

Each district has a DIC at its headquarters. And the main responsibility of DIC is to act as the chief coordinator or multifunctional agency in respect of various Government departments and other agencies. The prospective small entrepreneur would get all assistance from DIC for setting up and running an industry in rural area. The broad functions of DICs include identification of entrepreneurs, selection of projects, purchase of fixed assets, clearances from various departments, interest-free
sales tax, loan subsidy schemes, training programmes, self-employment for unemployed educated youth.

VI Small Industries Development Organisation (SIDO)

SIDO is the policy-making coordinating and monitoring agency for the development of small-scale entrepreneurs. It maintains a close liaison with government, financial institutions and other agencies, which are involved in the promotion and development of small-scale units. It provides a comprehensive range of consultancy services and technical, managerial, economic and marketing assistance to SSI units.

The main functions of the SIDO are coordination, industrial development and industrial extension service. Some important functions are:

1. To assess the requirements of indigenous and imported raw materials and components for the small-scale sector and to arrange for their supplies;

2. To collect data on consumer items which are imported and encourage the setting up of new units by giving them coordinated assistances;

3. To prepare model schemes, project report and other technical literature for prospective entrepreneurs;

4. To assist and advise the controller on capital issues in regard to the issue of import licences and the imposition of import restrictions on various products whose manufacture has already been undertaken indigenously by the existing or new units;

5. To secure reservation of certain products for the SSIs.
VII Small Industries Service Institutes (SISI)

Established in 1956 this institute, one in each state, has been rendering very useful service to small-scale industries. The assistance rendered by the institute and its extension centres in Tamil Nadu may be listed as follows:

i. Technical consultancy and advisory service

ii. Common facility service

iii. Training facilities

iv. Testing facilities

v. Marketing assistance

VIII State Promotion Corporation Of Tamil Nadu (SIPCOT)

SIPCOT was set up with the specific objective of playing a catalytic role in the promotion and development of medium and major industries and to hasten the industrial dispersal in backward and underdeveloped areas of the state.

SIPCOT’s role is to plan, promote and develop medium and major industries and its promotional activities comprise the following:

i. Provision of financial assistance on liberal terms to medium and major industries under IDBI Refinance scheme.

ii. Implementation of a package of incentives for the benefit of entrepreneurs.

iii. Development of potential growth centres and provision of developed lands at reasonable cost on easy payment terms.

iv. Provision of various ancillary services for the entrepreneurs.
IX Small Industry Extension Training Institute (SIET)

SIET Institute entered the field of consultancy on ad hoc basis mainly to support the activities of state governments and development corporations. SIET’s consultancy services have recently become broad-based in terms of both the types of assignments undertaken and area covered. Attention is paid to entrepreneurial development, training and counselling for sick industrial units towards development of backward areas.

X Tiruchirappalli Regional Engineering College-Science And Technology Entrepreneurs Park (TREC-STEP)

The concept of Science and Technology Entrepreneurship Park was conceived in the year 1973-74 and subsequently implemented at Motilal Nehru Regional Engineering College, Allahabad. At that time entrepreneurship courses were offered to graduates passing out from the college and also to degree and diploma holders passing out from other engineering colleges. Under this scheme at least four courses of entrepreneurship were conducted every year during 1974-78. The main aim of these courses was to promote enterprising spirit in young graduates for starting their own industries. As a consequence of these efforts, the government of Uttar Pradesh sanctioned an amount of Rs.58 lakhs for constructing 68 industrial sheds, which were rented out to young entrepreneurs. Simultaneously, a branch of State Bank of India was opened in the college and financial institutions of U.P. viz., U.P. financial corporation. The state electricity board was approached to provide power to the sheds. The entrepreneurs started various kinds of industries by taking loans from financial institutions and other organizations.
Training facilities of undergraduate students of the college are available in the industrial estate in the academic areas of mechanical, electrical, electronics, chemical and other branches of engineering.

XI Commercial Banks

In recent years commercial banks have not confined themselves to mere extension of finance to small entrepreneurs but have shown genuine concern for their progress and development.

State Bank of India (SBI)

In order to accelerate the development of identifying backward areas by monitoring potential entrepreneurs to take up risky new ventures, the SBI launched EDPs in 1978. SBI (Siruthozhil Valarchi) Branch is doing its best for the development of entrepreneurship. As per the bank’s ventures, the EDPs consist of one month intensive training in behavioural science, management aspects and field training. During the training period, the entire cost of boarding and lodging is borne by the bank.

The bank’s EDP consists of three phases:

(i) Initiation phase for creating awareness about entrepreneurial opportunities;

(ii) Development phase through training programmes in developing motivation and managerial skills; and

(iii) Support phase through counseling, encouragement and infrastructural support for establishing and running an enterprise.
**Punjab National Bank (PNB)**

Through its merchant banking division it offers similar package of assistance to small-scale units. They provide assistance to entrepreneurs in obtaining government consent required for industrial projects right from the time application for letter of intent is made. They assist the entrepreneur in raising rupee resources in the form of debentures, term loans, deferred payment guarantees from financial institutions.

**Indian Bank – Entrepreneurship Service Cell**

The bank provides consultancy services to persons who graduate from engineering and other colleges. The consultancy services right from identification of a project to its implementation and marketing are provided through personnel of the bank and panels of experts. The cell after preliminary discussion with the prospective entrepreneur assists him.