Chapter Six

SUMMARY AND CONCLUSION
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One of the major factors which shaped modern way of life is the industrial revolution and large scale manufacturing of various goods. However, inequalities in the economic development in various parts of the world made this impact of large scale manufacturing to be felt only in certain regions. In other areas, particularly in the Developing countries, small scale industries play a pivotal role in stabilizing the economic growth. Small scale Industries have become more significant in all modern economies as a growth–generating sector having a profound influence on jobs and incomes not only in the manufacture of goods but also in other branches of economic activity which provide manufacturer with material and other supplies and services. Thus national, regional and local interests are concerned with its development. Small Scale industries have become indispensable for a modern way of life in developing economies. These industries work for a large market inside and outside the country and aim at simplifying and standardizing their production. In most cases, these industrial units use machinery power and modern techniques. Further, such small scale industries facilitate the tapping of resources which otherwise would remain unused. These resources include entrepreneurship, capital, labour and raw materials. They can mobilize rural savings, which may otherwise remain idle or may be spent on luxuries or channelled into non-productive ventures. Like any other economic activity, small scale industries also exhibit variation in the spatial pattern making some areas with a higher concentration and other with lesser concentration. Similarly, there has also been changes in the pattern over a period of time. Thus the spatio-temporal analysis of the pattern of small scale industries is a suitable topic for geographical research. Keeping this in mind, the present study has
attempted to study the spatio temporal pattern of small scale industries at a district level. Theni district in Tamilnadu has been chosen as the study area.

Theni district is one of the southwestern districts of Tamilnadu extending between 9°30’ North and 10° 30’ North latitudes and 77 ° 00’ East and 78 ° 30’ East longitudes. Theni District was bifurcated from Madurai District and was commissioned on 1.1.1997. The district as a whole has a total of 8 Community Development Blocks. In these 8 blocks there are 98 villages, 5 Municipalities and 28 town panchayats. The district covers an area of 2869 sq.km. accounting for 2.20% of the geographical area of Tamilnadu. As per the recent 2011 census the total population is 1243684 persons with almost equal share of male and females. There has been a slight increase in the share of rural population (46.2%) in 2011. The district administrative headquarters is located at Theni Allinagaram town which is an important market centre.

The district lies at the foothill of Western Ghats and is diversified by several ranges and hills. A range of hills running parallel to the Western Ghats and nearly north to south separates the district from the neighboring Kerala State. In general, the average elevation varies from around 180m to 2400 metres. Physiographically the district can be divided into hilly area and central plains. A notable physiographic division is the Cumbum valley in the southwest. The western mountain ranges of the district are the source areas for major rivers such as Vaigai river and Periyar river. Mullaiar, Suruliyar, Kottagudi river, Manjalar, Shanmuganathi, Varaganath and Varattar are the other major streams in this district. Due to the mountainous character of the district, Theni district enjoys a salubrious climate with warm conditions throughout the year. It has an average annual rainfall of about 1192 mm of which 50% occurs during the Northeast monsoon period. The soil of Theni is highly heterogeneous in nature. The Forest and Hill type is the major category and
it covers slightly more than half of the total area of the district. Red soil is the second major type of soil and covers nearly 30% of the study area. Red soil is mainly found in the northeastern parts of the district. The district has a hilly area under natural vegetation and thick forests. There are 27 forest areas in Theni district constituting a total area of 795.8 sq.km. The major Reserved forests are Cumbum Valley West Reserved Forest, Cumbum Valley East Reserved Forest, Allinagaram Reserved Forest, Murugamalai Reserved Forest and Andipatti Reserved Forest.

The total population of the study area has increased nearly four times during the last century. It increased from 318559 persons in 1901 to 1243684 persons in 2011. According to 2001 census the study area had a total population of 1093950 and it increased to 1243684 in 2011. Since 2011 census data has not been officially published, only 2001 census data has to be used for the present study. Periyakulam, Bodinayakanur and Theni blocks are more significant because each of them have more than 15% share of the total population of the District. The average population density of the district was 381 persons per sq.km. in 2001 and it increased to 433 persons per sq.km. in 2011. The density of population in Theni district is highly uneven. The highest density of population is found in Theni block located in the north central part of the district. As per 2001 census, the sex ratio is 978 females per 1000 males. It is comparatively lower in the eastern parts of the district. Among the various blocks Kadamalaikundu – Myladumparai has the lowest sex ratio of 920 females per 1000 males. Theni district has a lower literacy rate than that of Tamilnadu State as a whole in 2001. The district has an average literacy of 63%. Like all other areas in the State, here also male literacy is higher than female literacy. On an average, nearly 72% of the males are literate, while 54% of female are literates. Theni, Uthamapalayam and Chinnamanur have a higher literacy rate than the district average, while the lowest literacy rate is noticed in Kadamalaikundu – Myladumparai block.
On the whole, about 47.6% of the total population of the district are engaged in various kinds of economic activities as main workers. The share of Cultivators and Agricultural workers is about 63.5 percent. Only 2.4 percent of the total workers are engaged in the Household industrial activities and the rest are grouped as Other workers. Net sown area is the most important type of land use in the District. Since the study area has mountain region in the west, forests cover about 36% of the total area and rank second among the types of land use. Nearly 8% of the land in put under non-agricultural uses. Other types have only a minimum share. Agriculture is one of the important sectors in the district. Agriculture and its allied sector in the district contribute significantly to the growth and development, pave way for the employment generation, growth in income, production and productivity. Paddy, Coconut and Sugarcane are the major crops in the study area. Paddy is widely cultivated in Theni, Uthamapalayam, Cumbum and Chinnamanur blocks whereas Sugarcane is cultivated in Theni and Periyakulam blocks in large area. Rainfed crops like Cotton and Groundnut are cultivated in Andipatti. Theni district is endowed with agro-climatic conditions conducive for growing a wide of horticulture crops such as Fruits, Vegetables, Spices, Banana, Flowers, Medicinal and Aromatic plants. Thus the study area has a good potential for development of various agro based industries.

Theni district has a number of major industrial units. These are 33 Ginning mills, 18 Spinning mills and 14 Weaving mills. Almost all the major industrial units occur in Theni, Bodinayakanur, Periyakulam blocks. The district has one Government Hospital and Government Medical college at Theni. The district has a well developed network of transport lines and communication which connect all important centers within the district, as well as various commercial centers of neighboring districts. A metre gauge railway line connects Bodinayakanur with
Madurai. However, at present it is under gauge conversion. Thus the study area has a varied pattern of physiographic and demographic parameters.

Manufacturing may be done on different scales – large, medium or small. Depending upon the nature of population, the role played by each of these scales is different. Small scale industries play a very vital role in the country’s economy despite the phenomenal growth in the large-scale sector. The types, characteristics and spatial pattern of these small scale industries vary from one region to the other. Further, their role in the economy also differs from one area to another. India is an emerging economy with a population of more than one billion. Nearly 40% of the population lives below the poverty line and 70% of the population is dependent on the agriculture for sustenance. The economic reconstruction of India depends on the balanced growth of economy in the fields of agriculture and industry. A small-scale industry can be operated by an entrepreneur without needing sophisticated machinery and modern technology. These small-scale industrial units can be established in semi-urban and rural areas where the infrastructure is underdeveloped.

In recent years, the small-scale sector in India has emerged as a progressive and decentralized sector on its own. Small-scale industries have made a significant contribution to employment generation in the non-agricultural sector in India. The data available from the Ministry of Small-scale Industries, Government of India indicates that there has been an excellent growth in small scale industries in India in recent years. The growth of employment in small sector is significantly large in small sector than other organized sector in India. However, sickness or financial distress in small-scale sector is however of great concern to the Government of India and the entrepreneurs. From 2006, the Government of India has formulated a common policy for micro, small and medium scale enterprises (MSME). In 2006-
2007 there were 27.3 million registered micro, small and medium enterprises with about 59.5 million workers. The growth rate of small scale industries however varies from earlier period to present day. In 2011-2012 the micro, small and medium enterprises provided employment to about 60 million persons through 26 million enterprises. In contrast to the large scale manufacturing, the small scale industries differ in terms of employment, capital, trade, skill and the role in rectifying regional imbalance. In recent years the Micro, Small and Medium Enterprises (MSME) sector has consistently registered higher growth rate compared to the overall industrial sector with its agility and dynamism. Today, the small scale industrial sector accounts for about 8 percent of the gross domestic product, 45 percent of the manufacturing output and 40 percent of its exports. Thus, micro, small and medium enterprises are important for the national objectives of growth with equity and inclusion.

   Every country has set its own parameters in defining small-scale sector. Generally, small-scale sector is defined in terms of investment ceilings on the original value of the installed plant and machinery. But in the earlier times the definition was based on employment. The Small Scale Industries Board in 1955 defined Small-scale industry as a unit “employing less than 50 employees if using power and less than 100 employees if not using power and with a capital asset not exceeding Rs. 5 lakhs.” According to the provision of Micro, Small and Medium Enterprise Development (MSMED) Act, 2006. the limit for investment in small manufacturing enterprises is more than Rs. 25 lakh but does not exceed Rs. 5 crore

   In spite of the advantages and relevance of small scale industries, there are also a number of problems faced by them. Inefficient and unskilled manpower, inadequate credit availability, irregular supply of raw material, absence of a properly organized marketing system, lack of infrastructure like power and water,
competition from large scale manufacturing sector and managerial inadequacies are some of the major problems faced by these industries.

Government of India set up a National small scale industries corporation for promoting small scale industries. In addition to this, a number of financial institutions such as IDBI, SIDBI, NABARD, State Financial Corporations, Co operative and Regional Rural banks and Commercial banks help small scale industries to get necessary credit facilities for establishing and running small scale industries. Further, a number of institutes are also set up by the Sate and Central Governments to provide training for establishment and running of MSME in the country.

There are nearly 26 million units of small scale industries in 2010 – 2011 in India producing different varieties of goods. These are classified into different groups. National Industrial Classification called Standard Industrial Classification (SIC), was finalized and released in 1962. This classification has 4 hierarchical levels given as 4 digit numbers. The first level is called ‘Division.’ This indicates a very broad field. This is subdivided into second level called ‘Major groups.’ At the third level each group is divided as ‘group.’ Finally at the 4th level, these groups are further subdivided as ‘Subgroups.’ The 1962 SIC of Central Statistical Organization had 9 Divisions, 55 Groups, 284 Classes and 753 subclasses. This was almost following the International Classification with some minor changes to suit Indian conditions. Subsequently the CSO revised its classification in 1987. In 1998, a further modification was brought in to the NIC scheme. It had a simplified scheme consisting of only 2 levels. At the first level, broad activities are given indicated by alphabets from ‘A’ to ‘Q’. Recently a new classification scheme has been adopted in 2008. This has 4 level categorization of activities. The first level is called ‘Section’ and the second level is called ‘Division.’ The third level is called ‘Group’
while the fourth level is termed ‘Class.’ At present the National Industrial Classification has 21 sections in which ‘Section C’ deals exclusively with Manufacturing.

In Section ‘C’ there are a number of ‘Divisions’ and among them Divisions 10 to 33 cover the various types of small scale industries. Any study on small scale industries has to depend upon these Divisions. However, all these types may not be present if the region is of micro or meso level. Therefore a suitable regrouping of these divisions has to be done to suit local requirement. Since the present study also has taken a District it has to adopt its own classification of small scale industries. For the present study 7 categories of small scale industries are considered. They are:

1. Agro based Industries
2. Forest based Industries
3. Textile based Industries
4. Chemical and Pharmaceutical based Industries
5. Mineral based Industries
6. Engineering and Allied based Industries
7. Miscellaneous Industries

The spatial distribution pattern of small scale industrial units is analyzed taking two time points of 1997 and 2007. In 1997 there were 1350 registered small scale manufacturing units employing 4062 workers.

Taking 2146 areas of concentration of manufacturing activities in the USA, Alexander and Lindberg (1961) concluded that for measuring manufacturing activity in an area, one can take any one of the variables such as number of units,
workers, capital, production, etc. Based on this assumption, the present study has taken the number of workers in each group of small scale industries for its analysis. To understand the intricate nature of these industries, the techniques of General distribution maps, Ratio map, Location Quotient, Coefficient of Geographic Association, and Index of industrial diversification are used.

In the case of Ratio Map, the regional average is considered as the median value and the subunits are divided first into two groups, namely above average and below average. In the next step, the above average is divided as Very High and High taking upper quartile value. Similarly lower quartile is used to divide ‘below average’ group into two as Low and Very Low. Ratio map gives a broad idea about the spatial concentration of a particular group of industry/activity over an area compared to the status for the region as a whole. Location quotient is a slightly better measurement of spatial concentration of an industry. A value of 1 indicates that the subunit has the same level of share of a particular activity like that of the region as a whole. Any value higher than 1 indicates a greater concentration of that activity in the subunit and a value of less than 1 indicates a lesser concentration.

In general the concentration of small scale industries is comparatively higher in the northern part of the study area and low is the southeastern parts. The concentration of workers varies from one block to the other. About 37% of the total workers are concentrated in Theni block alone because of its status as the headquarters of the District.

Textile based small scale industries form the largest group with a share of nearly 43% of the total workers. This is followed by Agro based industrial group in which about one- fifth of the total workers get employment. About 15.5% of the total workers are engaged in Engineering and Allied based industrial group which
ranks third. Even though the region has a sizable area under Dense Forests, Forest based industries are very limited and they employed only 3.2 % of the total workers.

In 1997, the Agro based industries group is present in all blocks. About one – fifth of all small scale workers belong to this group. Theni and Bodinayakanur have the highest number of workers in this group. This area is important for rice mills, soda, ice and flour mills. The locational quotient indicates a greater concentration of agro based industries in the Cumbum Valley and adjacent blocks, located primarily in the southern parts. Periyakulam and Andipatti record a lower level of concentration.

Forest based industries are found only in 6 out of 8 blocks. The major share of the workers are in the western side of the district particularly in Chinnamanur and Bodinayakanur. The important products in blocks are wooden furniture, paper files, basket, carpentry goods. The location quotient indicates a higher concentration of this group in Chinnamanur and Bodinayakanur blocks.

There were 683 Textile Based Industrial units in 1997 employing 1738 workers Andipatti is the most significant block and it has more than two- thirds of its total small scale industrial workers in this group. Cumbum and Chinnamanur have the lowest concentration of this industrial group. This industry is dominant in the northeastern parts of the district.

The engineering industry includes textile machinery, auto spare, lathe, etc. This type of activity is absent in Kadamalaikundu – Myladumparai block. Cumbum is the most important block and has about 25% of its total small scale industrial workers in this group. The location quotient shows a high level of concentration in Cumbum, Periyakulam and Uthamapalayam blocks. This category is more notable in the southwestern and northeastern parts of the study area.
Chemical and Pharmaceutical based industrial group has contributed only 7.5% of the workers. Kadamalaikundu – Myladumparai block does not have this category of industry. This industry also exhibits an almost similar pattern like that of the engineering group. Periyakulam and Cumbum blocks are most significant here also. However the share of workers in this group is not more than 10% in most of the blocks. This group of industrial workers has a higher spatial concentration in the north and southwestern part of the region while low concentration is noted in the eastern parts.

Mineral based industrial workers have a share of 5.4% of the workers. The spatial pattern shows a higher concentration in the central and northeastern parts of the study area. There is a very high concentration of this group in Chinnamanur block. Uthmapalayam and Bodinayakanur blocks have a notable concentration. Brick kiln is the most important industry in this group in all these three blocks.

Miscellaneous industrial group has 5% of the labour force. The southern parts of the study area show a higher concentration than the northern parts. Kadamalaikundu – Myladumparai block is most notable with nearly 45% of its total workers coming under this industrial group. Location quotient also is the highest in Kadamalaikundu – Myladumparai followed by Cumbum and Chinnamanur. Periyakulam has a very low level of concentration.

Alexander (1963) tries to estimate the relationship between overall manufacturing and a particular group of industry by calculating the Coefficient of Geographic Association which is attempted for the present investigation also. In general there is a good association between the spatial pattern of overall manufacturing and the particular industrial group for all seven categories considered except that of Forest group. Of the seven groups Chemical based industries had the highest conformity followed by Engineering and Allied group. The analysis
indicates that increase in the overall manufacturing will help all types of industries in the study area except Forest based industry.

The Index of industrial diversification indicates the potential of a region to the growth of manufacturing activity. A higher level of diversification means that the region is capable of supporting various types of manufacturing and vice versa. Sometime, a subunit can even have a higher level of diversification than the study region as a whole. Among the 8 blocks, the index shows a very high degree of diversification in the Western blocks of Chinnamanur, Bodinayakanur, Cumbum and Uthamapalayam. Andipatti has the lowest level of industrial diversification.

In 2007, there were 5145 registered small scale industrial units in Theni district and they employed 12728 persons. All the 7 categories of small scale industries are distributed in all the blocks except for Forest-based industry which is not present in Kadamalaikundu-Myladumparai block.

The same groups which were significant in 1997 occupy the first three ranks in 2007 also. However, there is variation in their share. Textile group improved its position in 2007 and had a share of 43.9% share to the total small scale industrial workers. On the other hand both Agro based group and Engineering and Allied based group have a decline in their share between 1997 and 2007. Chemical and Pharmaceutical based group declined notably between 1997 and 2007. Forest based industrial group had the lowest in 2007.

In 2007, about 1924 workers are engaged in 528 units under agro based industry. Theni and Cumbum blocks have a comparatively higher share of this group while Periyakulam block has the least significance. Share of workers under Forest based, to the total small scale industrial workers in only 2.2%. This industry has a higher concentration in the western parts in general, particularly in the
northwest. Andipatti block has a very low concentration of Forest based industries. The concentration of workers is the highest in Bodinayakanur block. Textile Based small scale industries ranked first in 2007 also in terms of both number of units as well as number of workers. Andipatti (59%) and Periyakulam (51%) have more than half of their small scale industrial workers in this group. Theni has the lowest share of 33.8%. The northeastern parts have a higher concentration of this group. Engineering and Allied industrial units in 2007 had a labour force of 1863 workers. In terms of the number of units, it ranked next to Textile group in 2007. A comparatively higher concentration of this group is found in the northern parts of the study area except Andipatti block.

Chemical and Pharmaceutical based Industries are distributed more in the northeastern and southwestern parts of the region. Theni, Andipatti and Cumbum blocks have more than 7% of their total small scale industries workers in this group while Chinnamanur block has the least share of 2.4%. This industry was absent in Kadamalaikundu – Myladumparai block in 1997 but by 2007 Four units have been started in this block. Mineral based Industries improved its status from 5th rank in to 4th rank in 2007. There has been a rapid growth of this industry during the study period. Even through all blocks have registered a positive growth in this group, it is more notable in Uthamapalayam, Kadamalaikundu – Myladumparai and Andipatti blocks. Uthamapalayam experienced a very high growth rate of nearly 10 times in number of units and workers. There seems to be a lesser concentration of this group in the northern and southwestern parts. Miscellaneous Group of Industries improved its rank from 6th position to 5th in 2007. Though all blocks witnessed an increased growth of this group, it is more notable in Periyakulam, Theni and Chinnamanur blocks.
This group exhibits a comparatively higher concentration in a southwest-northeast axis in the study area. A very sharp decline in index of concentration is noticed in Kadamalaikundu – Myladumparai block.

In 2007 also, all the major categories of small scale industries considered in the present investigation showed a high degree of compatibility with overall small scale industries in the study area. The Coefficient value also improved when compared to 1997 values. This is true for all groups except Chemical and Pharmaceutical based groups.

Theni and Bodinayakanur blocks had a higher level of diversification than the district as a whole which is indicated by negative values of the index of diversification. Other blocks except Andipatti have a comparatively higher level of diversification.

A positive dimension with regard to the small scale industries in the study area is that there has been a four fold increase in the number of registered Small Scale Industrial units between 1997 and 2007. However, many existing small scale industrial units have also been closed due to varied reasons during the same period. About 1525 units have been closed in the District till March 2009 due to various reasons. Since the number of total units as on March 2008 was 5145, it may be observed that nearly 30% of the units have been closed so far. Agro based industries lost more units than the other groups. 40% of the total Agro based industries in the District has been closed. Similarly about one – third of Engineering group and Chemical and Pharmaceutical group small scale industries have also been closed. Forest based group had the lowest share of closed small scale industrial units.

These details bring out the necessity to know about the reasons for closure of small scale industrial units. Therefore, the investigator collected primary data
through interview method to bring out additional dimensions of small scale industries in the study area. The investigator had personally interviewed the entrepreneur of small scale industrial units and collected details regarding investment, loan, source of raw material, marketing and transport. The various problems faced by the entrepreneur have also been collected. A total of 190 entrepreneurs have been contacted by this method. They are chosen as per purposive random sample.

Raw material is derived both from within and outside the district. For the sample industries as a whole taken in the entire district, it is found that 40% depend upon local raw material while another 42% get raw materials from outside the district. About 18% of industries contacted get raw material both from within the district as well as from place outside the district. Lorry, van and mini lorry group is the most important mode of transport used for bringing raw materials. Nearly three-fourths of total raw material supply depends upon this mode. Other mode category accounts for 13% share in the transport of raw material while about 6.3% raw material is brought through two wheelers. Manual carrying has an insignificant share.

About 61% of the total manufactured products are marketed within the district while another 30% go outside the district. Only about 11% of the products have market both within and outside the district. Nearly two-thirds of the products are sent to markets through lorry, van, mini lorry while 18% are marketed through ‘other mode’ category. An interesting dimension here is that 13% of the products are marketed by ‘self’ and two wheeler has only a share of 5%.

Nearly two – thirds of small scale industrial units had an investment of less than Rs 10 lakh. About 38% had only less than Rs 5 lakh. investment while another 25% had an investment between Rs 5 and 10 lakh. Industries which had an
investment of Rs 10 to 40 lakh accounted for a share of 17% while about 12% small scale industrial units had an investment of more than Rs 80 lakh. About 55% of respondents have availed loan while the rest utilized their own source of money. About 45% of the entrepreneurs who availed loan got money from Scheduled banks. Nationalised banks are also equally significant since they accounted for 40% share of the loans disbursed to small scale industrial units in the district. 15% availed loan from Tamilnadu Industrial Investment Corporation (TIIC).

65 units of agro based industries were contacted for primary survey. This group gets most of its raw material only from within the district, particularly from Theni, Periyakulam, Chinnamanur and Cumbum blocks. However products are marketed to other districts and States. Lorry, van and mini lorry are mostly used for transport of raw material and products. Though most of the units have low capital investment, about one-fifth of the unit had an investment of more than 80 lakh. However, only 45% of the entrepreneurs availed loan, mainly from National banks.

Nearly two-thirds of the sample Forest-based industries got raw material from outside the district. Almost all the raw material and the products are brought only by lorry, van and mini lorry. However, products are mostly marketed locally in Theni, Cumbum, Bodinayakanur and Uthamapalaya blocks. Most of the units had an investment of Rs 10 to Rs 40 lakhs. Only 43% of the entrepreneurs availed loan, mainly from Scheduled banks which are not Nationalised.

Local sources provide more than 50% of the raw material for textiles group of small scale industrial units while 37% of raw material comes from outside the district. Theni and Kadamalaikundu – Myladumparai blocks are the most important sources for raw material, especially silk cotton. Products however, are market both within the district and the other district and States. Lorry, van and mini lorry are mostly used for transporting the raw material and products of this group of small
scale industries to markets. An interesting dimension is that about one-third of
marketing is done by entrepreneurs. About 70% of the sample units have an
investment of less than Rs 10 lakh This is one of the groups of small scale industries
where the investment category of more than Rs 80 lakh is noticed. About 63% of
the sample entrepreneurs availed loan facility mostly from the Scheduled banks.

Twelve Chemical and Pharmaceutical units have been contacted as sample
units. This industrial group is absent in Kadamalaikundu – Myladumparai. 60% of
the units get raw material only from within the district, particularly from Theni,
Peryakulam and Cumbum are the important sources for raw material within the
district. However raw material is also purchased from Chennai, Madurai, Trichy
and Salem in Tamilnadu as well as from Delhi, Mumbai, Bangalore, Kolkata and
from Gujarat State. Lorry, van and mini lorry group is the most important mode of
transport for raw material and the products. 70% of the products are marketed
mostly (70%) within the district. Theni and Cumbum are the major markets within
the district. Chemical and pharmaceutical industrial units require more capital. It is
also validated in the sample study. Among all the categories of small scale
industries considered in the present study, only this group has the highest share
(50%) in the more than Rs 80 lakh investment category. Similarly another
one – third units have an investment of Rs 40 to Rs 80 lakhs. In spite of huge
investment, it is strange to note that more than 90% entrepreneurs met the
investment capital from their own source. Where loan is availed, it is derived
mostly from Nationalised banks.

Under the Mineral based industrial group, 12 sample units are contacted.
75% of the raw material comes from areas outside the district from Madurai,
Virudhunagar, Trichy, Salem and Coimbatore. About 88% of raw material is carried
by the lorry, van and mini lorry group. Products from this group of small scale
industries are marketed mostly outside the district. Theni, Andipatti, Periyakulam are the most important local market centres. Madurai, Dindigul, Rameswaram, Trichy are the major market centres in Tamilnadu for the products of this group of small scale industries. In addition, products from this industrial group are also sent to Kerala and Karnataka. Here also, products are mostly cavorted by lorry, van and mini lorry group. In general, this group requires comparatively less investment. Compared to the share of overall sample units, here the less than Rs 5 lakh investment group has a higher share. Another one – third of the sample units have an investment from Rs 5 to 10 lakh. Because of the comparatively lower level of investment, 85% of entrepreneurs have not availed any loan facility for establishment of the industrial units. Among those who got loan facility, most of them got loan from Scheduled banks.

40% of the sample units of Engineering and Allied Based Industries, get raw material from local sources. Only one – third of the sample units depend upon raw material from outside the district. Theni is the main source for raw material within the district while Chinnamanur, Cumbum, Andipatti and Uthamapalayam also provide source raw material. Regarding the sources outside the district, Chennai, Madurai, Coimbatore, Mumbai, Ernakulam and Delhi. About 58% of the raw material is transported by lorry, van and mini lorry group while 40% is transported by ‘other mode’ category. Most of the produce is marketed within the district. Compared to the overall marketing scenario, the share of lorry, van and mini lorry group in transport of products for this industrial group is less (46%). Here ‘other mode’ category has a comparatively significant share of 35%. Another notable aspect is that about 17% of the products is marketed by self. The capital of 44% sample units is less than Rs 5 lakh. 29% of the units had an investment from Rs 5 lakh to Rs 10 lakh. There is no units with more than Rs 80 lakh capital. Only 45% of entrepreneurs availed loan facility. They got then loan mostly from
Nationalised banks. This group has a comparatively more number of units who availed loan from Industrial Finance Institutions.

Miscellaneous group of industries depend more on sources exclusively outside the district for their raw material. Theni, Cumbum and Chinnamanur blocks are the local sources. Raw material is procured from various places in Tamilnadu such as Madurai, Virudhunagar and Chennai as well as from outside Tamilnadu from Mumbai and Delhi. Lorry, van and mini lorry group is the most important mode of transport for raw material. More than 90% of the sample units market their products within the district and Theni, Cumbum, Chinnamanur and Bodinayakanur are important. The most notable aspect of this category is that 62% of the products are marketed by self. No other industrial group has such a high share in the mode of transport of products for market. Most of the industrial units in this group have a comparatively lower level of investment. No industrial unit from this group has an investment of more than Rs 40 lakh. 50% of the entrepreneurs got loan facility. Among the sources for loan, only in this group of small scale industries, Industrial Finance Institution have provided maximum loan (38.5%). Nationalised banks also had an almost equal share.

Small scale industries also face a number of problems. In the primary survey the entrepreneurs were asked to list out the major problems faced by them and the details are Problem related to raw material, Problem related to production and marketing, Problem of labour supply, Problem of Finance and Other Miscellaneous problems. Most serious problems faced by the small scale industries in the study area is related to inadequate supply of raw material.

Decline in agricultural production resulted in shortage of raw material such as ground nut or cotton seed. Similarly introduction of new species of trees resulted in decline of quality wood for forest based industry. Problem of recycling affects
chemical industries, particularly plastic. The industrial groups have indicated inadequate power supply as the major problem related to production. Erratic power supply also resulted in poor quality of the product. Further wastage is more leading to higher cost. In addition competition from other industries also affects the marketing of products from small scale industries. For example, availability of readymade door, window, etc has affected forest based wood product industry. Hallow blocks has become a main competitor for brick industry. Soft drinks from major companies have crushed the local soft drinks manufacturing. Non availability of skilled labour is a major problem faced by wood products industry as well as gold ornament industry. Further the MGNREG scheme offers 100 days of assured employment for rural people. Hence they are not interested to do other jobs. Sometime shifting of labour also affects the production. For example brick manufacture depends on seasonal labour and when the labourers suddenly shift from one unit to the other, the production is affected. In the case of blocks bordering Kerala State, better employment opportunities in the estates lead to shortage of labour here.

Government has taken many steps to provide credit facilities for establishment and running of small scale industries. However, in reality, the cumbersome procedure, official apathy, problem of guarantee in the form of property and more time taken for processing and disbursal have been the major hindrances between the plan and its implementation.

Another common problem faced by all groups of industries is related to transport of products to the market. It has already been explained that lorry, van and mini lorry are used as main mode of transport for both raw material and finished products. Sudden increase in the price of petroleum products puts heavy burden on the entrepreneur who cannot hike the price of the product. Common problem,
sometimes deterioration of inter state relations also affects marketing. In the study area Coir industry in Cumbum block is affected by the Mullaiperiyar Dam issue since most of the product is marketed is the nearby Kerala State.

From the analysis of the pattern of small scale industries in the two selected time points the following inferences are made:

1. There has been a 4 times increase in the number of units and 3 fold increase in the number of workers during the period of study.

2. Textile, Agro based and Engineering group of small scale industries occupied first 3 ranks in both time points exhibiting their significance in the study area.

3. Some categories of industries which were absent in one or two blocks in 1997 have been established in 2007 in those blocks. Only exception to this that Kadamalaikundu- Myladumparai block did not any Forest based industry.

4. There has been a two to three fold increase in the number of workers in agro based industries during the study period in all blocks except Bodinayakanur. Chinnamanur exhibited a sharp decline in the location quotient value.

5. Forest based industries were absent in Andipatti block in 1997. But by 2007, 4 units have been newly established.

6. Textile Based Industries also show a similar increase though it is two-fold to four fold between 1997 and 2007 Kadamalaikundu – Myladumparai block has the highest growth in this study period.
Chinnamanur, Cumbum and Uthamapalayam blocks also experienced a sharp increase in the number of workers this group.

7. Engineering and Allied based Industries also experienced a threefold increase in the number of both units and workers. Kadamalaikundu – Myladumparai block which did not have this group of small scale industries in 1997 had 24 units newly established by 2007.

8. Chemical and Pharmaceutical based industrial units increased from 380 in 1997 to 817 in 2007. Compared to overall small scale industrial growth between 1997 and 2007, the growth of this group is slightly lesser. Because of this, the share and rank of this group declined from 1997 to 2007. This group was absent in Kadamalaikundu – Myladuparai block in 1997 but 4 new units have been established between 1997 and 2007.

9. Mineral based Industries industry exhibited a tremendous growth during the study period in which both the number of units and workers increased by more than 5 times. This group has spread newly to the Kadamalaikunu – Myladumparai block where it was absent in 1997.

10. With 496 registered units employing 1092 workers, Miscellaneous group of industries experienced a five fold increase during the study period.

11. Kadamalaikundu – Myladumparai block showed a very high location quotient of developed a large number of Small Scale Industries in various major groups. Because of this the number of workers increased from 9 in 1997 to 379 in 2007.

12. Forest based industry has improved its association with overall small scale industries. Association between overall manufacturing and
miscellaneous group has also improved considerably between 1997 and 2007. The analysis brings out the fact that the growth of small scale industries occurred in all blocks and for almost all groups. This validates that the region has a strong resource base for development of various types of small scale industries.

13. The study area exhibits different values for Index of industrial diversification. In 1997, 4 blocks had a higher level of diversification than the district as a whole. But in 2007 only 2 had this status. Bodinayakanur is the only block where level of diversification is greater than the District as a whole in both time points. Cumbum, Chinnamanur and Uthamapalayam had a higher level of diversification than the region as a whole in 1997. However growth of all groups of industries in all blocks resulted in a comparatively higher diversification for the district as a whole. Because of a comparatively higher diversification at the district level, these blocks have come only to the level for the district as a whole as far as the Diversification index is concerned.

**Recommendations**

1. The study has brought out the fact that the district is suitable for developing different types of small scale industries. Taking each block, steps may be initiated to start new units under the less represented group in the respective block.

2. One-third of the area is under Forests. But forest based industry has not developed as expected. Hence special attention may be given to this group so as to utilize the available resources better. Even the existing units mostly depend upon raw material from outside the
3. Among the blocks Kadamalaikundu-Myladumparai has the lowest concentration of small scale industries. As it is lying at the foothill region, steps may be initiated to develop more forest and agro-based industries.

4. A major problem faced by entrepreneurs is finance. In fact, it has been observed that information related to various credit facilities offered by the Government to the small scale industries is not known to many people. Hence awareness regarding this aspect may be created. Further simplification of procedure may help entrepreneurs and it may reduce the number of sick units.

5. Marketing is another dimension that requires attention. There is no system of marketing and it purely depends upon the entrepreneur. A Government operated Regulated market system for products of small scale industries similar on the line of regulated market for agricultural products may help further development.

6. Many of the existing units use old and obsolete machinery. They have suggested that special credit facility for replacement of machinery may help industries to perform better.
Scope for Further Research

The present study has taken all categories of small scale industries. However, each group has its own characteristic pattern. Hence each group may be taken separately for a detailed investigation. This is particularly applicable to forest-based industries. Specific studies on raw material supply and marketing aspects alone will help better functioning of the units there by improving the local economy.

If these issues are addressed properly, Theni district will become a model area for the development of small scale industries.