CHAPTER 6
SUMMARY OF RESEARCH FINDINGS AND CONCLUSIONS
The region of Rayalaseema consists of four districts: Anantapur, Chittoor, Cuddapah and Kurnool. The entire track suffers from frequent droughts and famines. Though the land is, largely, plain with large quantity of red soils and a few tracks of black cotton soils not yielding the anticipated agricultural output due to lack of irrigation facilitites. Under these conditions rural masses hardly engage themselves in gainfu' employment for a period of not more than five months in the year. As the agricultural sector does not seems to be promising in providing large scale employment although the year, the only next best alternative left open for the development of the region is through the growth and development of Small Scale Industrial (SSI) units in the rural areas of the region. The SSI units get enough labour force, which is otherwise remain untapped, for a relatively lower wages.

The Small Scale Industrial (SSI) sector is an important segment of the Indian economy: it is for this reason that it has been accorded a Key role in the industrial and economic development strategy for the Government of India aims to achieve simultaneously the twin objectives of rapid industrialisation and large scale employment generation on a decentralised basis. The SSI sector, till 1991, has enjoyed the benefits of
various promotional and supportive policies of the Government. However, in the present scenario of deregulation, SSI sector has to face competition from large scale industries and has to survive without much of the Government support. Notwithstanding these odd conditions, the sector is striving hard as not to be out of scene. Perhaps, the secret of their continuance is attributed to their efficiency in terms of better utilization of capital and labour inputs in the process of production. The present study is steered in the direction assessing efficiency levels attained by different category of SSI units in the Rayalaseema region of Andhra Pradesh. The primary objective of the present study is to assess the size and efficiency of Small Scale Industrial units in the Rayalaseema region of Andhra Pradesh. The following are the specific objectives of the study:

1. To review the development of SSI units in India;

2. To assess the development of SSI units in Andhra Pradesh in general and in Rayalaseema region in particular;

3. To examine the trends in the relative labour productivity and capital productivity of SSI units;

4. To estimate the relative efficiency of SSI units in terms of relative total factor productivity; and

5. To assess the efficiency of SSI units in terms of relative capacity utilisation in the production process.
The present study has tested the following hypotheses:

1. Capital intensity in small Size SSI units is lower than that of large size SSI units;
2. Labour productivity in the small size SSI units is lower than that of the large size SSI units;
3. Capital productivity in the small size SSI units is lower than that of the large size SSI units;
4. The overall efficiency, in terms of relative total factor productivity of small size SSI units is lower than that of the large size SSI units; and
5. Capacity utilisation in the production process in small size SSI units is lower than that of large size SSI units.

The Small Scale Industrial Sector has emerged as the most vital and dynamic sector of the Indian economy. It has helped significantly to expand and strengthened the entrepreneurial base in rapidly diversify its economy in the country.

The SSI sector produces more than 7500 products and provides employment to about 167 lakh workers. The share of employment in SSI sector in the overall employment of the organised sector of Indian economy is nearly 57 per cent in 1996-97. Thus, the SSI units have catered to the employment needs of people in the country.
The value of production made by SSI sector is Rs. 4,65,171 crores and it accounts for nearly 33 per cent of the Gross Domestic Product (GDP) of India in 1997-98, which clearly indicates the relative importance of the SSI sector in the economy of the country.

Export promotion has been one of the objectives behind the policy of product reservation of the SSI sector in India. The value of exports from SSI sector is Rs. 43,946 crores and it accounts for nearly 35 per cent of the value of total exports from Indian in 1997-98. Hence, one never fails to understand the impressive performance of the SSI units on the export front of the Indian economy.

The number of SSI units in Andhra Pradesh increased from 30462 in 1979 (the year in which District Industries Centres were started) to 132504 in 1999 (the latest year for which the data is available). The region-wise distribution of the number of SSI units shows that:

1. The share of SSI units in Telangana increased from 38.91 per cent in 1979 to 45.55 per cent in 1999;
2. The share of SSI units in Coastal Andhra declined from 44.60 per cent in 1979 to 42.73 per cent in 1999; and
3. The share of SSI units in Rayalaseema declined from 16.49 per cent in 1979 to 11.22 per cent in 1999.
The annual compound growth rate of number of SSI units in Andhra Pradesh during the period between 1979 and 1999 is 8.06 per cent. The annual compound growth rate of SSI units is 8.74 per cent in Telangana region, 7.88 per cent in Coastal Andhra region and 6.51 per cent in Rayalaseema region of Andhra Pradesh during the period of study.

The employment generated by SSI units in Andhra Pradesh increased from 325 thousand workers in 1979 to 1162 thousand workers in 1999 i.e. increased at an annual compound growth rate of 6.91 per cent during the period of study. The employment generated by SSI units increased from 133 thousand workers to 529 thousand workers in Coastal Andhra and from 45 thousand workers to 135 thousand workers in Rayalaseema regions of Andhra Pradesh during the period of study. The annual compound growth rate of employment in SSI units is the highest at 7.13 per cent in Telangana followed by 6.85 per cent in Coastal Andhra and is the lowest at 6.00 per cent in Rayalaseema region of Andhra Pradesh.

The capital investment in Plant and Machinery of SSI units in Andhra Pradesh increased from Rs. 152 crores in 1979 to Rs. 2990 crores in 1999 i.e. increased at an annual compound growth rate of 15.49 per cent during the period of study. The capital investment in SSI units increased from Rs. 76 crores to Rs. 1514 crores in Telangana region from Rs. 56 crores to Rs. 1164 crores in Coastal Andhra and from Rs. 20 crores to
Rs. 291 crores in Rayalaseema region of Andhra Pradesh during the period of study. The annual compound growth rate of Capital investment in SSI units is the highest at 15.76 per cent in Telangana region, followed by 15.31 per cent in Coastal Andhra region and is lowest at 14.54 per cent in Rayalaseema region of Andhra Pradesh during the period of study.

The Rayalaseema Region is, thus, lagging behind in the development of Small Scale Industries in the State. Even the Government's support in the form of subsidies and other package programmes could not trigger off the development of SSI units in the industrially backward and highly drought prone area of Rayalaseema. It is in this context the present study tries to estimate the efficiency levels of SSI units in the Rayalaseema region of Andhra Pradesh.

The measurement of efficiency in SSI units is a complex phenomenon. However, the efficiency levels of SSI units is assessed through the adoption of the widely accepted tools, such as, relative labour productivity, relative capital productivity and relative capital intensity indices. The efficiency of SSI units is being measured with the help of the index of relative total factor productivity, which together measures the combined effort of labour and capital. Further, efficiency of SSI units has been measured in the study with the help of the index of relative capacity utilisation in the production process.
The efficiency among SSI units is size-specific. Accordingly, the SSI units have been categorised into two size groups on the basis of investment on Plant and Machinery:

1. Small SSI units with an investment of less than Rs. 5 lakh; and
2. Large SSI units with an investment of more than Rs. 5 lakh.

Twelve categories of Small Scale Industries have been chosen for the primary survey, which have been spread in all the four districts of Rayalaseema. The selected industries are: (1) Rice Mills, (2) Bakery units, (3) Oil Mills, (4) Ice Factories, (5) Silk Reeling units, (6) Ready Made Garments, (7) Saw Mills, (8) Wooden Furniture units, (9) Slab Polishing units; (10) Granite industries, (11) Iron Furniture units and (12) Engineering workshops. The necessary care has been exercised while drawing a sample. Ten small SSI units and ten large SSI units have been chosen from each category to measure the relative efficiency of both large and small sizes SSI units.

The hypotheses that have been framed in the First Chapter have been tested by adopting suitable statistical tools in Fourth and Fifth Chapters. The summary of the efficiency levels of the selected groups of SSI units have been arrived on the basis of the selected parameters, such as: (1) Relative labour productivity, (2) Relative capital productivity, (3) Relative capital intensity, (4) Relative total factor productivity and (5) Relative
capacity utilisation in the production process. The average value of each one of the parameters for all the twenty selected SSI units of each category is taken as one and the relative efficiency indices of small and large sized groups of SSI units have been calculated and compared to assess the efficiency levels of the units concerned.

Labour productivity is the value added per worker. Capital productivity is the value added per unit of capital invested on Plan and Machinery. Capital intensity is the capital invested per worker. Total factor productivity is the productivity of all the factor inputs combined. While the labour and capital productivities are known as partial measures of efficiency, the total factor productivity is known as a comprehensive measure of efficiency. The total factor productivity shows the efficiency with which all inputs are utilised in a production function and capacity utilisation in the production process is the ratio of actual production to the production capacity of the SSI units. Production capacity in the present study is known as the installed capacity of the SSI unit.

However, all these parameters are the measures of absolute efficiency and it is not possible to compare the absolute efficiency levels of all the units. It is, therefore, adopted here the indices of these parameters which measures the relative efficiency levels of the selected group of SSI units compared to the average efficiency level of all the selected units in the
Small Scale Industry. The group of SSI units for which the index is greater than is known as efficient group compared to the average of all the SSI units.

The results summarised in Table 6.1 indicate that the small sized group of units have higher values of the parameters than the large sized group of units in all the selected Small Scale Industries except Ice factories. It is, therefore, concluded that the small sized SSI units are more efficient than the large sized SSI units among Small Scale Industries in Rayalaseema region of Andhra Pradesh. The main reason for this is majority of small sized SSI units have been run by the entrepreneurs on their own and they employ less number of workers on hired basis or on salary basis. The entrepreneur in small sized SSI units is an alrounder-worker, marketing agent, financier etc. They always try to minimise the cost of production by employing the inputs in an optimum level and hence all such small size SSI units have been working efficiently than the large sized SSI units.

But these results should not be generalised, because the area of the study is very small besides the sampled units are very limited in number. The sampled units have drawn from the selected twelve types of industries only, which when compared to various types of industries prevailing in the country are very small in number.
Table 6.1
Summary of the efficiency levels of the selected parameters for Small and Large SSI units of the selected industries in Rayalaseema

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Name of the Industry</th>
<th>Labour Productivity</th>
<th>Capital Productivity</th>
<th>Capital intensity</th>
<th>Total Factor Productivity</th>
<th>Capacity utilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Small</td>
<td>Large</td>
<td>Small</td>
<td>Large</td>
<td>Small</td>
</tr>
<tr>
<td>1</td>
<td>Rice Mills</td>
<td>2.25</td>
<td>0.58</td>
<td>1.69</td>
<td>0.65</td>
<td>1.31</td>
</tr>
<tr>
<td>2</td>
<td>Bakery Units</td>
<td>1.28</td>
<td>0.84</td>
<td>1.53</td>
<td>0.73</td>
<td>0.81</td>
</tr>
<tr>
<td>3</td>
<td>Oil Mills</td>
<td>1.42</td>
<td>0.85</td>
<td>1.32</td>
<td>0.89</td>
<td>1.07</td>
</tr>
<tr>
<td>4</td>
<td>Ice Factories</td>
<td>0.86</td>
<td>1.07</td>
<td>0.92</td>
<td>1.00</td>
<td>0.94</td>
</tr>
<tr>
<td>5</td>
<td>Silk Reeling Units</td>
<td>1.11</td>
<td>0.95</td>
<td>1.05</td>
<td>0.95</td>
<td>1.04</td>
</tr>
<tr>
<td>6</td>
<td>Ready Made Garments</td>
<td>1.09</td>
<td>0.94</td>
<td>1.10</td>
<td>0.93</td>
<td>0.98</td>
</tr>
<tr>
<td>7</td>
<td>Saw Mills</td>
<td>1.20</td>
<td>0.92</td>
<td>1.14</td>
<td>0.94</td>
<td>1.05</td>
</tr>
<tr>
<td>8</td>
<td>Wooden Furniture units</td>
<td>1.44</td>
<td>0.88</td>
<td>1.15</td>
<td>0.95</td>
<td>1.26</td>
</tr>
<tr>
<td>9</td>
<td>Slab Furniture units</td>
<td>1.06</td>
<td>0.97</td>
<td>1.48</td>
<td>0.85</td>
<td>0.71</td>
</tr>
<tr>
<td>10</td>
<td>Granites industries</td>
<td>1.12</td>
<td>0.95</td>
<td>1.50</td>
<td>0.85</td>
<td>0.73</td>
</tr>
<tr>
<td>11</td>
<td>Iron Furniture units</td>
<td>1.44</td>
<td>0.78</td>
<td>1.24</td>
<td>0.86</td>
<td>1.15</td>
</tr>
<tr>
<td>12</td>
<td>Engineering workshops</td>
<td>1.74</td>
<td>0.65</td>
<td>1.33</td>
<td>0.75</td>
<td>1.28</td>
</tr>
</tbody>
</table>

Source: Primary data
However, the results of the study are appropriate for the SSI units in the Rayalaseema region of Andhra Pradesh and holds good for all those regions which are similarly placed in the different parts of the vast country like India.

The following suggestions may be taken into consideration to tone up the efficiency of SSI units in the study area.

1. Extension of marketing area(s);
2. Adoption of advanced available technology;
3. The periodic skill development programmes are to be arranged by the Departments concerned so as to enable the workers to handle the latest equipments with ease in the production process;
4. The existing interest rate on the borrowed capital levied by the Financial institutions should be brought down to below ten per cent per annum, as it enables to adopt capital intensive methods in the production process;
5. Liberal finances should be made available to entrepreneurs, especially those who are engaged in running agro-based industries, with a view to maintain enough stock of raw materials lasting, at least, for three to four months in the year;
6. Uninterrupted supply of power should be made available at least for two shifts in a day;

7. Subsidised rates of advertisements provision to be extended to popularise the products of the SSI sector;

8. As the modernisation of the existing SSI units go a long way in improving the efficiency of the units concerned a package scheme may be designed by the Financial institutions analogous to the Venture Capital Scheme sponsored by the Industrial Development Bank of India (IDBI).

9. The Small Industries Development Bank of India instead of confining itself to capital cities should establish its branch offices in the district headquarters to gear up its machinery to encourage the entrepreneurs of the SSI units to meet the challenges of the times and in bettering the efficiency levels of the units in the country.

The attainment of efficiency cannot remain as a 'distant dream', if all the participatory service operating wings lend their proper coordination in making the SSI units economically vibrant and prosperous.