CHAPTER SEVEN

A COMPARATIVE ANALYSIS
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7:1 A BACKDROP

It is a fact beyond doubt that regional disparity is no less than a malice impeding the process of economic development. The State of Karnataka which is one of the seven industrially forward States, is seriously entangled with the problem of intra-regional disparities. With a view to tackling the problem, it has been designing several developmental programmes. One such developmental programme has been the proclamation of Industrial Policy Resolution of 1996-2001. In its broad spectrum the Policy Resolution has outlined the process of identifying the resource-rich but industrially backward regions and an attractive package of subsidies and incentives.

At the instance of the Karnataka Industrial Area Development Board, the Government has identified three Growth Centres in Dharwad, Hassan and Raichur. To foster industrialisation in these centres, the Government has channelised huge outlay to develop infrastructural facilities.

In the following analysis, an attempt is being made to draw sharp distinction between these three Growth Centres in the realm of:

1. the spurt of private investment;
2. development and growth of industrial enterprise; and
3. the generation of employment.
These Centres of Dharwad, Hassan and Raichur have been picked up for comparative study because:

1. they are industrially backward districts;
2. there is commonality in the rate of subsidies and incentives;
3. even the funding and implementing authority is one and the same, i.e., the Government of Karnataka.

7:2 COMPARATIVE ANALYSIS

In the following analysis, the discussion is built drawing distinction amongst the three Growth Centres of Dharwad, Hassan and Raichur in the fore-mentioned areas. It has been developed on the plank of secondary data.

7:2.1 INVESTMENT

Unlike the pubic sector investment which is chiefly guided by the objective of social gain rather than the personal profit, the private sector investment flows primarily depend on the plank of cost-benefit analysis. Larger the Marginal Efficiency of Capital, more is the investment flow.

Since investment is considered to be the prime factor lubricating the wheels of the industry, therefore, it is regarded as the master key transforming the socio-economic map of a region. Spontaneous flow of investment ensures the value, the volume and the course of industrial activity. It is, therefore, an attempt is being mobilised to draw a
distinction amongst the three Growth Centres in the realm of investment.

The legitimate data pertaining to District-wise investment, Moving Average and the Tan $\varnothing$ values have been projected in Table 7.1.

**TABLE - 7.1**
District-wise Investment, Moving Average and Tan $\varnothing$ Value
(Rs. in lacs)

<table>
<thead>
<tr>
<th>Year</th>
<th>Dharwad Invest-ment Rs</th>
<th>3 years moving average</th>
<th>Hassan Invest-ment Rs</th>
<th>3 years moving average</th>
<th>Raichur Invest-ment Rs</th>
<th>3 years moving average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>974</td>
<td>166</td>
<td>438</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989-90</td>
<td>747</td>
<td>111</td>
<td>269</td>
<td>313</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990-91</td>
<td>634</td>
<td>55</td>
<td>233</td>
<td>285</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991-92</td>
<td>1660</td>
<td>63</td>
<td>354</td>
<td>406</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992-93</td>
<td>1589</td>
<td>74</td>
<td>632</td>
<td>435</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993-94</td>
<td>2091</td>
<td>399</td>
<td>318</td>
<td>874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994-95</td>
<td>1628</td>
<td>492</td>
<td>1672</td>
<td>983</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995-96</td>
<td>2304</td>
<td>962</td>
<td>958</td>
<td>1317</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996-97</td>
<td>5419</td>
<td>452</td>
<td>1320</td>
<td>1092</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997-98</td>
<td>3720</td>
<td>1904</td>
<td>997</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of increase</th>
<th>Tan $\varnothing$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>378.62</td>
<td>0.64</td>
</tr>
<tr>
<td>1989-90</td>
<td>124.37</td>
<td>0.21</td>
</tr>
<tr>
<td>1990-91</td>
<td>97.37</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Source: Annual Reports of issues, Department of Industries and Commerce, Government of Karnataka, Bangalore.

The information displayed in Table 7.1 reveals that:

1. in respect of Growth Centre Dharwad, the rate of increase in investment during 1988-89 to 1997-98 is of the order of Rs.378.62 lacs per year;
2. as against this, rate of increase investment in respect of Growth Centres Hassan and Raichur during the period under review is Rs.124.37 lacs and Rs.97.37 lacs per year respectively; and

3. a comparative analysis amongst these Growth Centres reveals that the increase in investment in respect of Dharwad is three times more than that of Hassan and four times more than that of Raichur.

This distinction is reflected in Diagram 7.1.

It is evident from Diagram 7.1 that :

1. in respect of Dharwad the rate of increase in investment being Rs.378.62 lacs per year, its Tan Ø value is 0.64;

2. in case of Hassan, the rate of increase in investment being Rs.124.37 lacs per year, its Tan Ø value is 0.21;

3. while in case of Raichur, the rate of increase in investment being Rs.97.37 lacs per year, its Tan Ø value is 0.15; and

4. consequently, the curve reflecting in the case of Dharwad is lying above the two curves of Hassan and Raichur respectively.

Thus viewed from the angle of the Tan Ø values and the slope of the curves, it may be concluded that the private investment flow is very high in respect of Dharwad compared to the other two Growth Centres of Hassan and Raichur.
Diagram 7.1

INVESTMENT
7:2.2 GROWTH OF INDUSTRIAL ENTERPRISES

In the following analysis, distinction is being drawn in the realm of growth of industries in the three Growth Centres. The authentic data reflecting the district-wise industries three years moving average and Tan $\bar{\phi}$ values are presented in Table 7.2.

**TABLE – 7.2**
Data Pertaining to District-wise Units with 3 Years Moving Average with Tan $\bar{\phi}$ Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Dharwad</th>
<th>Hassan</th>
<th>Raichur</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Units</td>
<td>3 years moving average</td>
<td>Units</td>
</tr>
<tr>
<td>1988-89</td>
<td>822</td>
<td>130</td>
<td>309</td>
</tr>
<tr>
<td>1989-90</td>
<td>854</td>
<td>130</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>828</td>
<td>51</td>
<td>77</td>
</tr>
<tr>
<td>1990-91</td>
<td>886</td>
<td>51</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>823</td>
<td>71</td>
<td>126</td>
</tr>
<tr>
<td>1991-92</td>
<td>840</td>
<td>955</td>
<td>167</td>
</tr>
<tr>
<td></td>
<td>955</td>
<td>71</td>
<td>204</td>
</tr>
<tr>
<td>1992-93</td>
<td>1141</td>
<td>255</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>1063</td>
<td>172</td>
<td>265</td>
</tr>
<tr>
<td>1993-94</td>
<td>1210</td>
<td>191</td>
<td>425</td>
</tr>
<tr>
<td></td>
<td>1182</td>
<td>230</td>
<td>329</td>
</tr>
<tr>
<td>1994-95</td>
<td>1196</td>
<td>243</td>
<td>357</td>
</tr>
<tr>
<td></td>
<td>1197</td>
<td>232</td>
<td>407</td>
</tr>
<tr>
<td>1995-96</td>
<td>1184</td>
<td>261</td>
<td>438</td>
</tr>
<tr>
<td></td>
<td>1475</td>
<td>511</td>
<td>432</td>
</tr>
<tr>
<td>1996-97</td>
<td>2045</td>
<td>1028</td>
<td>510</td>
</tr>
<tr>
<td>Rate of increase</td>
<td>83.62</td>
<td>51.87</td>
<td>15.75</td>
</tr>
<tr>
<td>Tan $\bar{\phi}$ value</td>
<td>0.83</td>
<td>0.57</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Source: Annual Reports, various issues, Department of Industries and Commerce, Government of Karnataka, Bangalore.

The information displayed in Table 7.2 brings forward following facts:

1. in respect of Growth Centre Dharwad, the rate of increase in the number of units during 1988-89 to 1997-98 is of the order of 83.62 units per year;
2. in case of the districts of Hassan and Raichur the rate of increase in the number of industrial enterprise during the period under review is of the order of 51.87 and 15.75 units per year respectively; and

3. a comparative analysis of the rate of increase in the number of units per year amongst the sample three Growth Centres reveals that the centre of Dharwad has succeeded in attracting a large number of units compared to the other two Centres. Further, this increase in respect Dharwad is nearly two-folds than that of Hassan, while it is nearly five-folds more than that of Raichur. The Hassan district has fostered nearly three times the number of industries in Raichur.

The degree of distinction amongst these Growth Centres is projected with lot of clarity in Diagram 7.2.

Diagram 7.2 clearly displays the fact that:

1. in respect of Dharwad, the rate of increase in the number of units being 83.62 per year, its $\tan \varnothing$ value is 0.83;

2. in case of Hassan district, the rate of increase in number of units being 51.87 units per year, its $\tan \varnothing$ value is 0.57;

3. as against this, in case of Raichur, the annual rate of increase being 15.75 units, its $\tan \varnothing$ value is 0.17; and

4. consequently, the curve reflecting the case of district of Dharwad is lying above the two curves representing the growth of units in the districts of Hassan and Raichur.
Diagram 7.2

GROWTH OF INDUSTRIAL UNITS
Viewed from the angle of $\tan \theta$ value and the slope of the curves, it may be concluded that the district of Dharwad has succeeded in fostering a large number of industrial enterprise compared to the other two sample Growth Centres. The reason, amongst others, may be attributed to significant increase in the flow of private investment.

7.2.3 GENERATION OF EMPLOYMENT

In the following analysis, distinction is being drawn in the realm of industrial employment in the sample Growth Centres. The legitimate data are presented in Table 7.3.

**TABLE - 7.3**

<table>
<thead>
<tr>
<th>Year</th>
<th>Dharwad Employment</th>
<th>Dharwad 3 years moving average</th>
<th>Hassan Employment</th>
<th>Hassan 3 years moving average</th>
<th>Raichur Employment</th>
<th>Raichur 3 years moving average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>4058</td>
<td>552</td>
<td>1345</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989-90</td>
<td>3960</td>
<td>502</td>
<td>1286</td>
<td>1293</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990-91</td>
<td>3247</td>
<td>217</td>
<td>1249</td>
<td>1259</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991-92</td>
<td>4505</td>
<td>280</td>
<td>1241</td>
<td>1113</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992-93</td>
<td>4482</td>
<td>244</td>
<td>850</td>
<td>973</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993-94</td>
<td>5157</td>
<td>669</td>
<td>828</td>
<td>2106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994-95</td>
<td>7282</td>
<td>1426</td>
<td>4640</td>
<td>2767</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995-96</td>
<td>8324</td>
<td>2359</td>
<td>2833</td>
<td>3666</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996-97</td>
<td>8459</td>
<td>2617</td>
<td>3512</td>
<td>3333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997-98</td>
<td>13474</td>
<td>11825</td>
<td>3662</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rate of increase

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of increase</th>
<th>Tan $\theta$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>791.37</td>
<td>0.83</td>
</tr>
<tr>
<td>1989-90</td>
<td>647.12</td>
<td>0.67</td>
</tr>
<tr>
<td>1990-91</td>
<td>255</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Source: Annual Reports of issues, Department of Industries and Commerce, Government of Karnataka, Bangalore.
The information projected in Table 7.3 reveals that:

1. in respect of Growth Centre Dharwad, the rate of increase in employment during 1988-89 to 1997-98 is of the order of 791.37 per year;

2. in case of Hassan, it is comparatively less than Dharwad. It totals 647.12 per year; and

3. as against these two, the generation of employment in respect of Raichur is very low. The rate of increase during the period under review is of the order of 255.

The comparative analysis reveals that the annual rate of increase in employment in the district of Dharwad is more than three times that of Raichur.

The distinction in the realm of employment in the three sample Growth Centres is displayed in Diagram 7.3.

It is evident from Diagram 7.3 that:

1. in respect of the district of Dharwad, the annual rate of increase in employment being 791.37, its Tan Ø value is 0.83;

2. in case of Hassan district, per annum increase in employment is 647.12. Its Tan Ø value is 0.67; and

3. as against this, in case of Raichur, the annual increase being 255, its Tan Ø value is 0.26.
Diagram 7.3

EMPLOYMENT

Year

Employment

1st
2nd
3rd
Based on the slope of curves, it may be asserted that the curve representing the employment status of Dharwad Growth Centre is lying above the two curves reflecting the case of Hassan and Raichur.

Viewed from the angle of Tan $\theta$ value and slope of the curve, it seems the Growth Centre of Dharwad has succeeded in generating huge employment opportunities compared to Growth Centres – Hassan and Raichur.

7:3 CAUSES FOR DISPARITIES

A microscopic search into the performance of the sample Growth Centres of the State of Karnataka unveils the fact that the district of Dharwad seems to be better performer compared to the districts of Hassan and Raichur in the realm of private investment flows, growth of industries and industrial employment. The performance of Raichur seems to be quite marginal.

These glaring differences may be attributed to the following reasons:

A. (i) The Development Economists unanimously hold the view that a well-knit, a well-organised and efficiently co-ordinated transportation and communication facilities constitute the bedrock for rapid economic development.

The private sector management who always evaluates the techno-economic feasibility of their investment projects under the framework
of Cost-Benefit-Analysis, opt for such locations which possess sound infrastructural facilities.

(ii) The district of Dharwad being located centrally in the Northern Karnataka is blessed with as many as triple modes of transportation, namely, railways, roads and the airways. Further, the industrial estates of Tarihal, Gokul, Lakmanhalli and Belur have created the much sought-after infrastructural facilities needed by the private sector management.

The Hubli city which is famously known as Second Bangalore or Chhota Bombay has built up its credibility as the most coveted industrial and commercial centre since the times of Britishers. As early as 1885 it attracted a giant industrial enterprise in the Regional Railway Workshops followed by a Quasi-Government KSRTC Regional Workshops in 1954. These enterprises perhaps stimulated the private sector management to base their ventures in and around Hubli.

In respect of Hassan and Raichur, such development is not found.

B. The district of Dharwad offers a fertile market of skilled manpower. The technical and training centres such as ITI, Engineering and Polytechnic institution, CEDOK, SISI, Management Studies Centres, etc., have been rendering yeoman services in turning out trained personnel needed by the industries. The districts of Raichur and Hassan do not have accessibility to such technical and training facilities.
C. The districts of Hassan and Raichur are located in the vicinity of metro-cities, namely, Bangalore and Hyderabad respectively. These cities offer better industrial environment for entrepreneurs to locate their ventures. As against this, the district of Dharwad is away from such metro-cities.

7:4 COMPARATIVE ANALYSIS BETWEEN DHARWAD DISTRICT AND BANGALORE URBAN DISTRICT

It is oft-quoted that comparison is drawn amongst comparable but it is no less interesting, academically, to draw a distinction amongst incomparables. Beyond doubt, the two regions of Karnataka State, namely, the district of Dharwad and the Bangalore urban are incomparables. There is a yawning gulf between the two in the realm of industrial activity and the quality of economic growth. The Silicon Valley of India, Bangalore, is enjoying a place of pride in the national economy of India in general and the economy of Karnataka in particular. It is one amongst the ten top fastest developing cities of the world.

In spite of this, an attempt is being made, in all academic sincerity to draw a distinction between the two, with a view to projecting the degree of disparity, so as to charter the ways and means to eradicate intra-State disparities and help realising the objective of balanced regional development.
The areas chosen for comparative study include:

1. the flow of private investment;
2. the growth of industrial enterprises; and
3. industrial employment.

7:4.1 INVESTMENT

The legitimate data pertaining to district-wise investment, the Moving Average and the Tan $\varnothing$ value have been displayed in Table 7.4.

**TABLE - 7.4**

Data Pertaining to District-wise Investment, 3 Years Moving Average, Tan $\varnothing$ Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Bangalore Urban</th>
<th>Dharwad</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Investment (Rs. in lacs)</td>
<td>3 years moving average</td>
</tr>
<tr>
<td>1988-89</td>
<td>6181</td>
<td>974</td>
</tr>
<tr>
<td>1989-90</td>
<td>7449</td>
<td>7179</td>
</tr>
<tr>
<td>1990-91</td>
<td>7909</td>
<td>8776</td>
</tr>
<tr>
<td>1991-92</td>
<td>10971</td>
<td>10168</td>
</tr>
<tr>
<td>1992-93</td>
<td>11624</td>
<td>11005</td>
</tr>
<tr>
<td>1993-94</td>
<td>10421</td>
<td>13000</td>
</tr>
<tr>
<td>1994-95</td>
<td>16956</td>
<td>13379</td>
</tr>
<tr>
<td>1995-96</td>
<td>12762</td>
<td>12496</td>
</tr>
<tr>
<td>1996-97</td>
<td>7772</td>
<td>11650</td>
</tr>
<tr>
<td>1997-98</td>
<td>14416</td>
<td>3720</td>
</tr>
</tbody>
</table>

Rate of increase: 558.87 378.62
Tan $\varnothing$ value: 0.62 0.42

Source: Annual Reports of various issues, Department of Industries and Commerce, Government of Karnataka, Bangalore.
The information displayed in Table 7.4 reveals that:

1. in respect of Bangalore urban district, the rate of increase in investment during 1988-89 to 1997-98 is of the order of Rs.558.87 lacs per year;

2. as against this, the rate of increase in investment in respect of Dharwad district during the period under review is Rs.378.62 lacs per year; and

3. a comparative analysis between these two districts reveals that the increase in investment is respect of Bangalore urban district is nearly doubled, with that of Dharwad district.

This distinction is reflected in Diagram 7.4.

It is evident from the Diagram 7.4 that:

1. in respect of Bangalore urban district, the rate of increase in investment being Rs.558.87 lacs per year, its Tan $\varnothing$ value is 0.62;

2. in case of Dharwad district the rate of increase in investment being Rs.378.62 per year, its Tan $\varnothing$ value is 0.42; and

3. consequently, the curve reflecting the case of Bangalore urban district is lying above the Dharwad district.

Thus viewed from the angle of Tan $\varnothing$ value and the slope of the curves, it may be concluded that the private investment flow is very high compared to Bangalore urban.
Diagram 7.4
INVESTMENT

[Graph showing investment over years with points at 378.62 and 558.87]
7:4.2 GROWTH OF INDUSTRIAL ENTERPRISES

In the following analysis, distinction is being drawn in the realm of growth of industrial units in Bangalore urban district and Dharwad district. The authentic data reflecting the Bangalore urban district and Dharwad district, three years Moving Average and Tan $\emptyset$ values are presented in Table 7.5.

### TABLE – 7.5
Data Pertaining to District-wise Units, 3 Years Moving Average, Tan $\emptyset$ Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Bangalore urban</th>
<th>Dharwad</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Units</td>
<td>3 years moving average</td>
</tr>
<tr>
<td>1988-89</td>
<td>1026</td>
<td>822</td>
</tr>
<tr>
<td>1989-90</td>
<td>1054</td>
<td>1096</td>
</tr>
<tr>
<td>1990-91</td>
<td>1209</td>
<td>1397</td>
</tr>
<tr>
<td>1991-92</td>
<td>1928</td>
<td>1934</td>
</tr>
<tr>
<td>1992-93</td>
<td>2666</td>
<td>2276</td>
</tr>
<tr>
<td>1993-94</td>
<td>2235</td>
<td>2836</td>
</tr>
<tr>
<td>1994-95</td>
<td>3608</td>
<td>2698</td>
</tr>
<tr>
<td>1995-96</td>
<td>2252</td>
<td>2737</td>
</tr>
<tr>
<td>1996-97</td>
<td>2351</td>
<td>2693</td>
</tr>
<tr>
<td>1997-98</td>
<td>3478</td>
<td></td>
</tr>
<tr>
<td>Rate of increase</td>
<td>199.62</td>
<td>83.62</td>
</tr>
<tr>
<td>Tan $\emptyset$ value</td>
<td>0.32</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Source: Annual Reports of various issues, Department of Industries and Commerce, Government of Karnataka, Bangalore.

The information displayed in Table 7.5 bring forwards the facts that:

1. in respect of Bangalore urban district the rate of increase of units during 1988-89 to 1997-98 is of the order of 199.62 per unit;
2. in case of Dharwad district, the rate of increase in the number of industrial enterprises during the period under review is of the order of 83.62 units per year; and

3. a comparative analysis of the rate of increase in the number of units per year among the sample Bangalore urban district and Dharwad district reveals that the Bangalore urban district has succeeded in attracting a large number of units compared to the Dharwad district. Further this increase in respect of Bangalore urban district is nearly two folds than that of Dharwad district.

The degree of distinction among these centres may be projected with lot of clarity through Diagram 7.5.

Diagram 7.5 clearly displays the fact that:

1. in respect of Bangalore urban district, the rate of increase in the number of units being 199.62 per year, its Tan $\emptyset$ value is 0.32;

2. in case of Dharwad district, the rate of increase in the number of units being 83.62 per year, its Tan $\emptyset$ value is 0.14; and

3. consequently the slope of the curve reflecting the case of Bangalore urban district is lying above the below curve, i.e., Dharwad district curve.

Viewed from the angle of Tan $\emptyset$ value and the slope of the curves it may be concluded that Bangalore urban district has succeeded in fostering a large number of industrial enterprises compared to the Dharwad district. The reason may be attributed to significant increase in the flow of private investment.
Diagram 7.5

GROWTH OF INDUSTRIAL UNITS

Units

Year

199.62(0.32)

83.62(0.14)

1st

2nd
7:4.3 GENERATION OF EMPLOYMENT

In the following analysis, distinction is being drawn in the realm of industrial employment in the sample districts, i.e., Bangalore urban district and Dharwad district. The legitimate data are presented in Table 7.6.

**TABLE 7.6**

Data Pertaining to District-wise Units, 3 Years Moving Average, Tan $\theta$ value

<table>
<thead>
<tr>
<th>Year</th>
<th>Bangalore Urban</th>
<th>Dharwad</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employment</td>
<td>3 years moving averages</td>
</tr>
<tr>
<td>1988-89</td>
<td>9890</td>
<td>4058</td>
</tr>
<tr>
<td>1989-90</td>
<td>11160</td>
<td>11880</td>
</tr>
<tr>
<td>1990-91</td>
<td>14761</td>
<td>14261</td>
</tr>
<tr>
<td>1991-92</td>
<td>16864</td>
<td>12817</td>
</tr>
<tr>
<td>1992-93</td>
<td>6827</td>
<td>14334</td>
</tr>
<tr>
<td>1993-94</td>
<td>19311</td>
<td>15234</td>
</tr>
<tr>
<td>1994-95</td>
<td>19564</td>
<td>18085</td>
</tr>
<tr>
<td>1995-96</td>
<td>15381</td>
<td>22134</td>
</tr>
<tr>
<td>1996-97</td>
<td>31457</td>
<td>13474</td>
</tr>
<tr>
<td>Rate of increase</td>
<td>1484.75</td>
<td>791.37</td>
</tr>
<tr>
<td>Tan $\theta$ value</td>
<td>0.53</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Source: Annual Reports, various issues, Department of Industries and Commerce, Government of Karnataka, Bangalore.

The information projected in Table 7.6 reveals that:

1. in respect of Bangalore urban district, the rate of increase in employment during 1988-89 to 1997-98 is of the order of 1,484.75 per year;

2. in case of Dharwad district, it is comparatively less than that of Bangalore urban district. It totals 791.37 per year; and
the comparative analysis reveals that the annual rate of increase in employment in Bangalore urban district is more than double than that of Dharwad district.

The distinction in the realm of employment in the Bangalore urban district and Dharwad district is displayed in Diagram 7.6.

It is evident from Diagram 7.6 that:

1. in respect of the district of Bangalore urban, the rate of increase in employment being 1,484.75, its Tan Ø value is 0.53; and

2. in case of Dharwad district per annum increase in employment is 791.37. Its Tan Ø value is 0.28.

Based on the slope of curves, it may be asserted that the curve representing the employment status of Bangalore urban district and Dharwad district. Bangalore urban district employment curve is lying above the Dharwad district curve reflecting in case of Dharwad district.

Thus Bangalore district urban has generated a large number of employment compared to its counterpart in Dharwad.
Diagram 7.6

EMPLOYMENT

- 1st
- 2nd
7:5 CAUSES FOR DISPARITIES

A microscopic search into the performance of the economy of Dharwad and the economy of Bangalore urban in the realm of the spurt of private investment flows, growth of industrial enterprises and generation of industrial employment has unveiled the fact that there is a yawning difference between the two economies. The reasons for such glaring differences may be attributed to the following facts.

1. Being placed at the most coveted status as the capital place of State of Karnataka, Bangalore urban district could develop the most befitting environment for the institution of a large variety of industries. It has an exemplary infrastructural facilities. Being the Silicon Valley of India, the city is linked with the entire world. It has an efficient and well-knit transportation system in roads, railways and airways. The money, factor and commodity markets are accessible at the doorsteps of entrepreneurs. It being the headquarters of the State, the entrepreneurs enjoy all benefits pertaining to seeking of licences, counselling, services, etc.

As against this the economy of Dharwad is handicapped comparatively in the realm of transportation, communication and other infrastructural facilities.

2. Being the city of high repute in every nook and corner of the world as the Home of Informatics Industry of India, there is a rich inflow of foreign capital participating in heavy machine tools,
electronics industries, etc. It has given a big push for the growth of ancillaries. In addition to this, several export-participating industries have sprung up.

The economy of Dharwad, being industrially backward region, could not attract foreign investment proposals.

3. In its budgetary exercises, the Government of Karnataka has been appropriating sizeable outlay for the development of Bangalore urban. Nearly two-thirds of the outlay is earmarked for its up-keep and development. As against this, rich revenue-feeding region of Dharwad to the Government of Karnataka has been ignored in the allocation of funds.

7:6 CONCLUSION

The study pertaining to the comparative analysis of triple-Growth Centres of the State of Karnataka and the industrially developed region of Karnataka, namely, the Bangalore urban has fed with following findings.

GROWTH CENTRES:

INVESTMENT:

1. In the realm of investment, the rate of increase in respect Dharwad being Rs.378.62 lacs per annum, its Tan $0$ value is 0.64.
2. In case of Hassan, the rate of increase in investment being Rs.124.37 lacs per annum, its Tan $\varnothing$ values is 0.21.

3. In respect of Raichur, the rate of increase in investment being Rs.97.37 lacs per annum its Tan $\varnothing$ value is 0.15.

4. Viewed from the angle of the Tan $\varnothing$ values and slope of the curves, it seems that the flow of private investment is very high in respect of Dharwad district, compared to the other two Growth Centres of Hassan and Raichur.

GROWTH OF INDUSTRIAL ENTERPRISE

1. In respect of the Growth Centre Dharwad the rate of increase in number of units being 83.62 per annum, its Tan $\varnothing$ value is 0.83.

2. In case of Hassan district the rate of increase being 51.57 units per annum, its Tan $\varnothing$ value is 0.57.

3. In respect of Raichur, the annual rate of increase being 15.75, its Tan $\varnothing$ value is 0.17.

4. The district of Dharwad has succeeded in fostering a large number of industrial entrepreneurs compared to the other two Growth Centres of Hassan and Raichur.
GENERATION OF EMPLOYMENT:

1. In the realm of industrial employment, the per annum rate of increase in employment being 791.37, the Tan $\theta$ values in respect Dharwad is 0.83.

2. The Bangalore urban as attracted a huge private investment flows compared to the Dharwad district.

COMPARATIVE ANALYSIS BETWEEN BANGALORE URBAN DISTRICT AND DHARWAD DISTRICT

INVESTMENT

1. In respect of Bangalore urban, the rate of increase in investment being Rs.558.87 lacs per annum, its Tan $\theta$ value is 0.62.

2. In case of Dharwad district the rate of increase being Rs.378.62 lacs per annum, its Tan $\theta$ value is 0.42.

3. In case of Dharwad district per annum increase in employment is 791.37, its Tan $\theta$ value is 0.28.

4. Viewed from the angle of Tan $\theta$ value and slope of the curves, it seems the employment status of Bangalore urban district is lying above the curve of Dharwad district and generating more industrial employment.
GROWTH OF INDUSTRIAL ENTERPRISES

1. In respect of Bangalore urban district, the rate of increase in the number of industrial units being 199.62 per year, its Tan $\Theta$ value is 0.32.

2. In case of Dharwad district, the rate of increase in the number of industrial units being 83.62 per year, its Tan $\Theta$ value is 0.14.

3. Bangalore urban district has succeeded in fostering a large number of industrial enterprises compared to the Dharwad district.

GENERATION OF EMPLOYMENT

1. In respect of the district of Bangalore urban, the rate of increase in industrial employment bearing 1,484.75, its Tan $\Theta$ value is 0.53.

2. In respect of the Growth Centre of Hassan, the per annum increase in employment is 647.12. Its Tan $\Theta$ value is 0.67.

3. In respect of Raichur the annual increase being 255, its Tan $\Theta$ value is 0.26.

4. Viewed from the angle of Tan $\Theta$ value and slope of the curves, it seems the Growth Centre of Dharwad district has succeeded in generating huge employment opportunities compared to Hassan and Raichur Growth Centres.
7 PART - II

INDUSTRIAL ESTATES – A COMPARATIVE ANALYSIS

7:7.1 INTRODUCTION

In the following analysis an attempt is being made to present the comparative analysis in respect of the sample Industrial Estates. The comparative study sheds pointed focus on the flow of private investment and generation of employment in the sample industrial estates. The study has been developed on the plank of primary data. (Please see Annuxure -IV.)

The discussion has come to a close with suitable conclusion.

Since the inception of economic planning, the policy designers of Indian national economy have rightly understood the need and implication of industrial estates in fostering industrial enterprises on an organised footing. These estates act as the doorways in enunciating industrialisation in industrially backward regions.

With a view to eradicating intra-state regional disparities, the Government of Karnataka has been taking keen interest in building up the industrial estates especially in industrially backward pocket. The district of Dharwad which has been identified as an industrially poor but a resource rich region, is extended the facility of as many as, if not more than five industrial estates, viz., :
1. The Tarihal Industrial Estate,
2. The Gokul Industrial Estate,
3. The Lakmanhalli Industrial Estate,
4. The Belur Industrial Estate, and
5. The Ramankoppa Industrial Estate.

Of these five, the Ramankoppa Industrial Estate, is under construction.

The present study on hand has concentrated on four Industrial estates except the Ramankoppa Industrial Estate of Kundgol. It being an explorative study, an attempt is being made to muster and explicate the information pertaining to the flow of private investment, growth of industries and the generation of employment.

In this broad lap, the study has covered 200 sample industrial units, i.e., 50 units in each industrial estate. The primary data assimilated through administering an exhaustive questionnaire have explicated under the framework of:

1. percentage method; and
2. the computation of Tan $\varnothing$ values.

These exercises have been carried out to find out the impact of the package of incentives and subsidies in attracting the flow of private investment and generating employment.
7:7.2 INVESTMENT

The legitimate data pertaining to the investment have been presented in Table 7.7.

**TABLE - 7.7**

Private Investment Flows Industrial Estate-wise in the District of Dharwad

<table>
<thead>
<tr>
<th>Industrial Estates</th>
<th>Investment Rs. in lacs</th>
<th>Percentage</th>
<th>Total Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarihal Industrial Estate</td>
<td>2417</td>
<td>22.82</td>
<td>1.27</td>
</tr>
<tr>
<td>Gokul Industrial Estate</td>
<td>2831</td>
<td>26.73</td>
<td>1.53</td>
</tr>
<tr>
<td>Lakmanhal, Industrial Estate</td>
<td>2791</td>
<td>26.66</td>
<td>1.48</td>
</tr>
<tr>
<td>Belur Industrial Estate</td>
<td>2549</td>
<td>24.09</td>
<td>1.37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10588</strong></td>
<td><strong>100</strong></td>
<td><strong>5.18</strong></td>
</tr>
</tbody>
</table>

Source: Survey data.

The investment figures displayed in Table 7.7 unveil the fact that:

1. the private investment flow is the highest (i.e., 26.73 per cent) in respect of Gokul Industrial Estate followed by the investment in Lakmanhalli Industrial Estate, and

2. amongst these, the Tarihal Industrial Estate has the lowest investment flow (i.e., 22.8 per cent).

The reasons for the disparity in investment flows may be attributed to the following facts.

1. The Industrial Estate of Gokul has succeeded in attracting more private investment flows (i.e., 26.73 per cent) because it is the
first and the oldest estate developed on the map of the district of Dharwad. Further, it has on its roll a variety of industries such as Microfinish, BDK Valves, Ferro Alloys Steels, Kamakshi Oils, Alu Prints, etc., which have built up their reputation as leading industries in their respective fields with large investment.

2. The Lakmanhalli Industrial Estate is ranking next to Gokul because it has provided a fertile ground for the growth of machine tools and electronic industries.

3. The Tarihal Industrial Estate is placed in the last position in respect of investment (i.e., 22.8 per cent) because it is passing through its budding stage. It was developed during mid-nineties. Further most of the enterprise come under the definition of small scale industries which are capital-light industries.

The distinction amongst these Industrial Estates in the realm of investment is displayed in Diagram 7.7.

It is evident from the Diagram 7.7 that:

1. the percentage of investment being 26.7 per cent in respect of Gokul Industrial Estate, its Tan Ø value is 1.53;

2. in respect of Lakhmanhalli Industrial Estate the investment being 26.36 per cent, its Tan Ø value is 1.48;
Diagram 7.7

INVESTMENT
3. as against this, in respect Belur and Tarihal Industrial Estate, the investment being 24.09 per cent and 22.82 per cent, their Tan $\bar{O}$ values are 1.37 and 1.27 respectively; and

4. consequently, the curve reflecting the cause of Gokul Industrial Estate is lying above the other three curves reflecting the cases of Lakmanhalli, Belur and Tarihal Industrial Estates.

Viewed from the angle of slope of curves, it may be asserted that the private investment flow is more compared to other industrial estates.

7.7.3 GENERATION OF EMPLOYMENT

The legitimate data pertaining to the employment generation have been presented in Table 7.8.

**TABLE 7.8**

Industrial Estate-wise Generation of Employment in District of Dharwad

<table>
<thead>
<tr>
<th>Industrial Estates</th>
<th>Employment</th>
<th>Percentage</th>
<th>Total $\bar{O}$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarihal Industrial Estate</td>
<td>1827</td>
<td>23.43</td>
<td>1.11</td>
</tr>
<tr>
<td>Gokul Industrial Estate</td>
<td>2248</td>
<td>28.83</td>
<td>1.37</td>
</tr>
<tr>
<td>Lakmanhalli, Industrial Estate</td>
<td>1767</td>
<td>22.66</td>
<td>1.07</td>
</tr>
<tr>
<td>Belur Industrial Estate</td>
<td>1954</td>
<td>25.32</td>
<td>1.23</td>
</tr>
<tr>
<td>Total</td>
<td>7796</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
The employment generation figures displayed in Table 7.8 unveil the fact that:

1. the employment generation is the highest (i.e., 28.83 per cent) in respect of Gokul Industrial Estate followed by the employment generation in Belur Industrial Estate (i.e., 25.32 per cent); and

2. amongst these the Lakmanhalli Industrial Estate has the lowest employment generation.

The reasons for the disparity in generation of employment may be attributed to following facts:

1. the Industrial Estate of Gokul has succeeded (i.e., 28.83 per cent) because it is the first and the oldest estate developed on the map of the district of Dharwad. Further, it has its roll a variety of industries provide employment namely, chemical production, minerals followed by plastics and PVC units;

2. The Belur Industrial Estate is ranking next to Gokul Industrial Estate. It has provided more number of employment; and

3. The Lakhmanhalli Industrial Estate is placed in the last position in respect of employment generation.

The distinction amongst these industrial estates in the realm of employment generation is displayed in Diagram 7.8.
Diagram 7.8

EMPLOYMENT

![Diagram showing employment over years with data points for 1948, 1954, 1827, and 1767]
It is evident from the Diagram 7.8 that:

1. the percentage of employment generation being 28.83 per cent in respect of Gokul Industrial Estates; its Tan \( \varnothing \) value is 1.37;

2. in respect of Belur Industrial Estate the employment generation being 25.32 per cent, its Tan \( \varnothing \) value is 21.23;

3. as against this, in respect of Lakhmanhalli and Tarihal Industrial Estates the employment generation being 22.66 per cent and 23.43 per cent respectively; and

4. consequently, the curve reflecting the case of Gokul Industrial Estate is lying above the other three industrial estates.

Viewed from the angle of slope of curves it may be asserted that the generation of employment is more compared to other industrial estates.

7:7.4 CONCLUSION

A comparative study of the industrial estates has come forward with following conclusions.

INVESTMENT

1. The private investment flow is the highest in respect of Gokul Industrial Estate followed by the investment in the Lakhmanhalli Industrial Estate.
2. The Tarihal Industrial Estate has the lowest investment flow.

Viewed from the angle of Tan $\varnothing$ value and slope of the curve it has emerged that the private investment flow is very high in respect of the Gokul Industrial Estate.

GENERATION OF EMPLOYMENT

1. In respect of generation of employment the Tan $\varnothing$ value being 1.37, the Gokul Industrial Estate is leading.

2. The Industrial Estate of Lakhmanhalli with its Tan $\varnothing$ value of 1.07 could generate less employment compared to the industrial estates of Belur and Tarihal, because there is concentration of capital-intensive but labour substituting industrial units.