CHAPTER SEVEN

INDUSTRIAL LOCATION AND TERRITORIAL DEVELOPMENT IN AMRELI DISTRICT

CHAPTER-VII

INDUSTRIAL LOCATION AND TERRITORIAL DEVELOPMENT IN AMRELI DISTRICT

I INTRODUCTION:

It is a known fact that industrialization plays a very important role in the overall development of a region. It is due to this fact that planners and policy makers consider "industrialisation" as the most adequate instrument to achieve dynamism in growth process.[56] Industrialisation, in addition, is also a way of achieving a more equal distribution of income. Hence, planners have accepted development of industries as a means to reduce regional disparities as well as promotion of growth in that region.

Historically, industrial development has been invariably unbalanced.[57] Development does not take place every where at the same time. It starts at some point, and then it radiate out to other points. Nevertheless in this course, disparities soon appear in the level of industrial development in different regions.

It is against this back ground that in this chapter the analysis of industrial location and territorial development in Amreli district has been attempted. Amreli district has been chosen for the study for two main reasons. (i) The district is least developed, even though it has vast agriculture, livestock, minerals, and human resources.[58](ii) Very few studies of industrial development in all talukas of Amreli region have been undertaken till date.

Industrial development in Amreli district has not been equally distributed in all talukas. Traditionally, it was concentrated in Amreli, Rajula and Lathi. Over a period of time, industries were getting dispersed as a part of government policy to other talukas of the district, but still the problem of territorial industrial disparity existed. Like Vadodara district, in Amreli too, there are some talukas where industrial agglomeration has taken place. It is a fact that agglomeration of industries enjoys benefits of external economics.

[56] See Sadhak (1986)
[57] See Hirchman (1958)
[58] See I.G.Patel Committee Report

But at the same time it is also recognized that more concentration of industries in certain place is strategically unwise and extremely dangerous from the socio-economic point of view.[59] Industrial dispersal efforts serve the more important objective of creating employment opportunity in backward region, and enable all the regions to benefit from industrialisation.

In the previous chapter, we had analyzed the nature and extent of industrial development in Vadodara district. It was found that within the district, there exists inter-taluka industrial disparity. The districts have experienced significant growth of industries, but are concentrated in few talukas like Vadodara, Savli, Padra, and Karjan district.

As a sequel in this chapter, an analysis of industrialisation at one of the most industrially backward district Amreli has been taken up. In this chapter also, the following aspects have been dealt with:

(i) Location Quotient of industries for different groups of industries in all talukas of Amreli district for the selected year 1990-91, 2000-01 and 2009-10 are calculated

(ii)Growth and instability index in terms of registered factories, employment and investment both in absolute and as well as in percentage share from 1990-91 to 2009-10

The rest of the chapter is divided into number of sections. In section II socio economic background as well as the present industrial scenario of the district has been presented, III discusses the data source and methodology. In section IV the results are presented. In section V the inter taluka industrial disparity has been examined and finally in the last section conclusions are drawn.

II THE SOCIO-ECONOMIC BACKGROUND AND INDUSTRIAL SCENARIO OF AMRELI DISTRICT:

Amreli district is located in the north-east corner of Saurastra region of the Gujarat state. The total area of the district 7403.76 sq km, with eleven talukas, eight urban areas and 618 villages in the district. As per the 2001 census, total population of the district is 1393295 people; density of population was 188 persons per sq km which is much lower than the state average. In the district, out of total population, only 22.46% are

[59] See Sadhak (1986)

living in the urban areas, which are much lower than the state average, this shows the district is mainly rural. It had 60.44 % literacy rate, again lower than the state average.

As per 2001 census, in the district total working population was 43.12%. Of the total workforce nearly 74% were dependent on agriculture; about 4% was engaged in industrial activity and 22% depended on trade commerce and service activities. These figures show that Amreli district is one of the socially backward districts of the state.

A) Agriculture:

As stated earlier, agriculture is the main occupation of the people in the district. Approximately 74% of workforce is engaged in agriculture and allied activities. The main crops of the district are Ground nuts, Bajra, Jowar, Cotton, Pulses, Wheat and some other spices. The district has high agricultural productivity in Cotton and Ground nuts. Climatically, the district is also suitable for good number of horticultural crops like Mango, Chiku, Coconut, Lemon, etc. In view of ever expanding the demand for such fruits, the district has got a wider scope for expansion and at the same time the state government is also proving subsidy to encourage the people to go for horticulture crops, which would stimulate the growth of agro based industries in the region.

Dairy industry is well established in the district and the second largest income generating sector next to agriculture in the district.

B) Fisheries:

The district has the advantage of possessing coastline of sixty-two kilometers on the Arabian Sea, having rich fishing centres of Jafarabad, Kotda, Shailbet, Victor, Rajula and Pipavav. Thus, Amreli is an important marine fishing zone of the state.

C) Minerals:

The district has significant mineral wealth. It has vast deposits of the Limestone; most of it is of cement grade. Other important minerals available in the district are Bauxite, Calcite and Bentonite.

Industrial exploitation of other mineral is not that significant as quantity available is comparatively lower. However, there are a number of mineral based industries such as Calcite grinding, Bentonite powder. These processed minerals are further put to industrial use in many industries.

D) Infrastructural Facilities Exist in The District:

In the absence of infrastructural facilities, industrial development of any region becomes rather difficult. These infrastructures include the availability of roads, power, railway, communication, water, transportation, education, industrial estates, banking facilities, etc. In Amreli district, the existing facilities are elaborated as under:

i. Transport and Communication:

The quality of roads in the district is very poor as compared to other districts. The total road network in the district is also very poor. The total road network in the district is 4219.70 kms, out of which 3364 kms (80%) are pucca road and 855 kms are (20%) are kutcha roads; many of the villages are not approachable during the monsoon season.

In the district out of eleven talukas, four talukas do not have any rail facilities. There is only one airport at Amreli. However, no regular flights are operated by the airport authority. However, the district has the benefit of sixty-two kilometers long sea coast. Where three ports Victor, Jafarabad, and Pipavav are located. These ports were built on PPP basis.

ii. Banking:

The district has 107 branches of the nationalized banks and 52 other branches. The ratio of banks to the people is 1: 8763.

iii. Education:

The role of educational institutions and the technical training institutes are very vital for industrial development in the region. There are good number of schools and colleges in the district. In the year 2010, the number of Primary schools in the district was 966, Secondary and Higher Secondary schools was 171. The district had 20 colleges affiliated to Saurastra University. It has one Polytechnic and one Technical institute, as well as six ITIs providing technical training to youth for the job as well as for the self employment.

iv. Power:

Power supply is the chief necessity for the economies and industrial development of the district. The main source of power supply in the district is Gujarat Electricity Board. Except one village of Rajula taluka, all the villages have been electrified. There are twenty eight sub stations in the district distributing the electricity.

v. Water:

Availability of water is another pre-requisite for the development of industries. However, the fact is that the district water deficit district.

From the above it can be summarized that the quality of infrastructure is poor in the district and at the same time it is not available in every part of the district. This has resulted in the district being industrially backward.

Even today situation has not improved; Amreli district is still one of the most industrially backward districts of the state.[60] As per the I.G.Patel committee report (1984), the government of Gujarat has declared some talukas as industrially most backward talukas and some were industrially backward talukas. The district has eleven talukas, out of these talukas Babra, Jafarabad, Khambha, Liliya and Rajula were declared as the industrially most backward talukas. While Dhari, Amreli, Kunkavav-Vadia, Lathi, Savarkundala as well as Bagasara were declared as the industrially backward talukas. Thus, all eleven talukas of the district were considered industrially backward. As a result the whole district itself can be called as industrially backward district.

The availability of developed industrial plots, readily built industrial sheds in a well chosen locations with basic infrastructural facilities like roads, water, power are the pre requisite to attract and to encourage industries in the long run. It is for this reason that the Gujarat Industrial Development Corporation (GIDC) had extended its activities to Amreli district by establishing six industrial estates, one each at Amreli, Jafarabad, Lilia, Lathi, Babra and Rajula taluka. Table 7.1 shows position of these industrial estates.

From the table, it can be seen that, out of eleven talukas, industrial estates are available only in six talukas and that too of small size, in terms of number of sheds and land acquired. Nevertheless, the existence of the industrial estates in these talukas has led to some development of industrial activities in the district.

[60] This was evident in chapter V

Table 7.1

Industrial Estates (GIDC) in Amreli District

Sr No.	Talukas	Name of the Industrial Estates	Land (in Hectors)	No. of Sheds	No. of Units
1	Babra	Babra I & II	25.81	10	40
2	Lathi	Dam Nagar	14.82	06	38
3	Lilia	Godhavdar	1.00	07	02
4	Amreli	Amreli	14.05	69	110
5	Jafarabad	Babarkot	1.00	07	03
6	Rajula	Rajula	1.00	08	04
Total		-	57.68	107	197

Source: Regional Manager GIDC, Bhavnagar

GIDC has proposed two more industrial estates, one each at Amreli and Savarkundala taluka with 81.00 hectors and 82.00 hectors land acquired respectively. Till date the district does not have any private industrial estate. However, there are two co-operative industrial estates in the district, one at Dhari with six sheds and the other at Rajula with eight sheds. There is a proposal to develop port based industrial estate with 1000 hectors of land at Pipavav.

Apart from industrial estates, the industrial development of the district is to be developed through cluster model. Clusters are geographic concentration of establishments, factories, encompassing both large and small firms of inter related companies and the institutions that "feed" them-producing similar products. Clusters are important features because they allow companies to be more productive and innovative than they could be in isolation.[61]

As per 2000 census of small scale industries the district had eight industrial clusters, one each at Rajula, Bagasara and Savarkundala and five at Amreli taluka. Table 7.2 provides other information of these clusters.

[61] See Kaya (2006)

Table 7.2
Number of SSI Industrial Clusters within Amreli District 2000

Sr No	Name of the Product	Talukas	No. of Units	Investments (Rs in Lakhs)	Employment
1	Soda ash & Salt base industries	Rajula	18	42.11	169
2	Jems & Jewellary	Bagasara	11	37.91	106
3	Electrical Machinery	Savarkundala	40	196. 33	179
4	Metal ware	Amreli	39	169. 57	241
5	Oil mills	Amreli	41	176. 19	339
6	Power looms	Amreli	110	182. 88	467
7	Wood products & Furniture	Amreli	106	145. 67	307
8	Diamond processing	Amreli	58	248. 13	179
Total		-	423	1198. 79	1987

*Source: **SSI Census 2000***

It is evident from this table that, the power looms cluster (textiles) had the largest number of units, providing employment to more than 23% of the labour force.

As far as the registered units were concerned, at the time of the formation of the Gujarat state in the year 1960, there were only 47 registered units in the district. This was mainly concentrated in Amreli, Rajula and Lathi talukas of the district. By 1971, another 82 units were registered. After a decade the number increased to 360 industrial units, out of which 42% were located in Amreli, 15% in Rajula, 11% in Lathi taluka and rest were located in eight talukas. It was only in the eighties that the industrial scenario in the district underwent change. Many small scale diversified groups got registered during this period. Further the first large scale industry of the district namely the Gujarat Co-operative Marketing Federation Ltd was established in Amreli taluka for producing edible oil. The liberalization process in the nineties further helped the Amreli district in industrial development. And by 2009-10 the registered units increased to 6945. In addition 16 more large scale industries got established in the district.

TABLE 7.3

Taluka wise Industrial Progress in Amreli District: 2009-10

Sr no	Taluka	Number of units		Investment		Employment	
		Large	SSI	Large (in Crores)	SSI (in Lakhs)	Large	SSI
1	Amreli	02	1424	6	3211.84	397	4711
2	Dhari	02	1046	2	1445.42	22	2587
3	Kunkavav Vadia	-	516	-	394.32	-	1168
4	Rajula	09	597	2114	2659.08	3561	2656
5	Babra	03	380	18	3350.94	87	1231
6	Jafarabad	01	297	38	514.91	115	728
7	Lathi	-	819	-	1800.52	-	2090
8	Savarkundala	-	341	-	1066.18	-	901
9	Bagasara	-	924	-	1715.92	-	2374
10	Khambha	-	382	-	485.81	-	948
11	Lilia	-	202	-	462.22	-	546
Total		17	6928	2178	17107.16	4182	19940

Source: **DIC, Amreli**

With regards to employment in the year 1960, there were only 153 persons employed in the registered units in the district. This increased to 446 persons by 1970-71. By 2009-10 the total number of persons employed increased to 24122. Similar trend is evident for the total investment. The number of registered units, employment and investment is presented in table 7.3.

It is clear from the Table 7.3 that out of eleven talukas in Amreli district, large scale industrial units are located only in five talukas. Maximum numbers of large scale industrial units are located in Rajula taluka; in fact more than 50% of large scale units are located in Rajula taluka. The picture is similar, if we look at investment in these units and employment. Babra taluka accounted for about 18% of large scale units, over and above it also accounted for second highest investment.

If we look at the distribution of Small scale industrial units in the district in the year 2009-10, it is found that, most of the SSI units are concentrated in Amreli (21%), Dhari (15%), Bagasara (13%) and Lathi (12%) talukas. The picture is alike, if we look at

employment in SSI in this district. However, in terms of investment in SSI, Babra taluka accounted for 20% of total investment; Amreli taluka had a share of 19% and Rajula taluka about 16% of the total investment in the district.

It is quite apparent from the above that most of the industrial activities are concentrated in Amreli, Dhari, Rajula and Bagasara talukas. These talukas had some industrial concentration even before the reforms. However, in comparing the industrial scenario of Amreli district for the year 2009-10 with that of 1990-91, it emerges out that a slight industrial dispersal has taken place away from Amreli, Dhari and Lathi talukas. For instance, in the year 1990-91, 30% of industrial units were located in Amreli taluka, which has declined to 21% in 2009-10. Similarly, Rajula taluka accounted for just 3% of industrial units in 1990-91 but in 2009-10 it increased to nearly 9%. Thus, it can be affirmed that the state government's industrial dispersal policy to some extent has been successful in achieving the objective of more equitable distribution of industries.[62]

The group wise and taluka wise employment generation in the year 2009-10 has been presented in Table 7.4. This table is evidences that in terms of employment generation, it is Amreli taluka that has contributed the largest among all eleven talukas. Further, it is also clear that the Textiles and Chemical & Chemical products have generated almost 80% of the employment in the district.

Experience shows that with economic progress, manufacturing sector witnesses a fall in labour intensity and an increase in capital intensity. The taluka wise factor intensity (labour & capital) has been presented in Table 7.5. It is evident from this table that in majority of talukas, the labour as well as capital intensity has increased. This clearly indicates that in Amreli district like Vadodara district there is not only improvement in technology but also there has been increased demand for labour. This may be due to reason that industries have become more capital intensive, at the same time it has led to rising demand for skilled labour.

From the forgone analysis, it is evident that most of the industrial activities have taken place in Amreli, Dhari and Rajula talukas in the district. Further in terms of employment two industries that is Textiles and Chemical & Chemical products have

[62] Currently the Government of Gujarat has been encouraging Pipavav port and port based industries in Rajula taluka.

accounted for the bulk of employment. This suggests that the location of industries in Amreli district is not optimum in terms of uniformity. This requires an in-depth analysis industrial localization, which is taken up in the following sections.

TABLE 7.5

Taluka wise Labour Intensity and Capital Intensity in Registered SSI (Amreli District)

Sr No	Talukas	1990-91		1995-96		2000-01		2005-06		2009-10	
		L.I	C.I	L.I	C.I	L.I	C.I	L.I	C.I	L.I	C.I
1	Amreli	4.57	0.94	3.43	1.48	1.99	1.85	1.84	4.62	10.63	4.18
2	Dhari	00	00	2.71	1.12	1.85	1.76	1.00	0.12	2.16	1.00
3	Kunkavav-Vadia	3.30	0.89	1.97	0.88	1.20	1.77	1.00	0.12	2.78	2.44
4	Rajula	3.96	0.95	1.80	2.14	1.88	2.84	3.63	5.29	20.33	5.51
5	Babra	00	00	2.00	0.94	1.50	1.62	1.00	0.12	10.72	4.44
6	Jafarabad	3.00	0.46	00	00	1.30	2.18	00	00	00	00
7	Lathi	2.80	0.83	2.00	1.78	1.29	1.81	1.00	0.12	5.38	2.75
8	Savarkundala	00	00	00	00	1.76	2.42	2.62	5.17	10.88	5.38
9	Bagasara	3.50	0.69	2.47	1.22	1.67	2.25	1.00	0.12	2.00	1.00
10	Khambha	3.60	0.72	2.00	1.36	00	00	5.00	5.00	2.00	1.00
11	Lilia	00	00	00	00	1.60	1.22	1.00	0.12	5.20	2.20

Note: **L.I.= Labour Intensity** **C.I.= Capital Intensity**

Source: Compiled from Various Issues of District Industries Centre, Amreli.

III DATA SOURCES AND METHODOLOGY:

For the study of inter-taluka industrial-disparity in Amreli district, we have relied on secondary sources of data. These data were collected from "Industrial Outline of Amreli district" and "Socio-Economic Review of Amreli district", published by District Panchayat Amreli, "Industrial Outline of Amreli", published by District Industries Centre of Amreli. The present study in order to analyze inter-taluka disparity, limits itself to the analysis of regional disparities in terms of "Factories", "Employment" and "Investment" from 1990-91 to 2009-10.

The methodology adopted in this chapter is the same as in the previous chapter i.e. the location quotient of industries is used to measure localization of industries. In addition the compound growth rate and instability index value for factories, employment and investment has also been attempted. In the next section the results are presented.

IV RESULTS:

This section deals with the analyses of Location Quotient of all eleven talukas of Amreli district. From table 7.6 it is evident, that in the year 1990-91, five industrial groups viz Food & Beverages, Rubber-Plastic & Petroleum, Cement & Clay work, Basic

Metal and Transport Equipments had location quotient of greater than unity in Amreli taluka. In other words, these five industrial groups had larger share of employment in Amreli taluka than justified by its share in the distribution of employment in the district. Of the remaining industrial groups, six industries had location quotient equal to zero, which means these groups were absent in that particular year in the taluka. As stated before, the changes in the value of location quotient of a given taluka in respect to particular industry over a period of time reflects the changes in the relative importance of the taluka in respect of that industry. In this connection, the location quotient of five groups mentioned above had declined in the year 2009-10. In other words, these groups of industries have loosened their importance in employment generation. In contrast Chemical & Chemical products and Metal products which did not figure in employment generation earlier had location quotient of greater than one in the year 2009-10. Based on the methodology described earlier, the industrial groups which can be categorized as future star in Amreli taluka are Textiles and Electrical Machinery. Whereas, Chemical & Chemical products and Metal products can be categorized as star industrial groups, while Food & Beverages, Wood & Wood products, Rubber-Plastic & Petroleum, Cement & Clay work, Basic Metal and Transport Equipments can be deemed to be declining stars.

The Location Quotient for Dhari taluka (Table 7.7) shows that no industrial group was registered in the year 1990-91, whereas in the year 2009-10 seven industrial groups viz Food & Beverages, Tobacco products, Textiles, Wood & Wood products, Paper & Paper products, Leather & Leather products and Cement & Clay work had a location quotient greater than one. Whereas, five industrial groups of Rubber-Plastic & Petroleum, Basic Metal, Metal products, Electrical Machinery and Transport Equipments had a location quotient value equal to zero, which shows that in this particular year these groups did not generate any employment in the taluka. In this taluka, due to the presence of the forest area, supply of timber is higher, as an outcome, the location quotient for Wood products are higher. Furthermore, the supply of raw tobacco has led to high location quotient value in the taluka. Here, star industrial groups are Food & Beverages, Tobacco products, Textiles, Wood & Wood products, Paper & Paper products and Cement & Clay work. Whereas Chemical & Chemical products are the future stars.

As for as the location quotient for Kunkavav Vadia was concerned (Table 7.8), only three groups of industries viz Food & Beverages, Wood & Wood products and

Cement & Clay work had registered location quotient value greater than one in the year 1990-91. However, in the year 2009-10, Food & Beverages, Tobacco products and Textiles has shown location quotient value greater than one. In the same year, nine industrial groups were absent; as a result their location quotient value is zero. Kunkavav Vadia taluka is basically agricultural based taluka, thus, more number of rice mills and oil mills are present here. Consequently, Food & Beverages had a higher location quotient value. In this taluka, Chemical & Chemical products can be regarded as future star, whereas Food & Beverages, Tobacco products and Textiles can be considered as star industrial groups.

The location quotient for Rajula taluka (Table 7.9), for the year 1990-91, had only two groups i.e. Basic Metal and Metal products with location quotient value greater than one, whereas six industrial groups had location quotient value zero, as they were absent in the taluka. However by 2009-10, the situation has improved. Seven industrial groups viz Leather & Leather products, Rubber-Plastic & Petroleum, Cement & Clay work, Basic Metal, Metal products, Electrical Machinery and Transport Equipments had registered location quotient value greater than one. In this taluka due to presence of Pipavav port, the Rubber-Plastic & Petroleum, Basic Metal, Metal products, Electrical Machinery and Transport Equipments got a boost, so the location quotient value had increased. Here, future star groups are Food & Beverages, Tobacco products, Textiles, Wood & Wood products, Paper & Paper products and Chemical & Chemical products. Whereas, Leather & Leather products, Rubber-Plastic & Petroleum, Cement & Clay work, Basic Metal, Metal Products, Electrical Machinery and Transport Equipments are categorized as star industrial groups.

TABLE 7.6
Location Quotient and Specialization Matrix in AMRELI Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	18	02	20.69	0.50	-88.89	-97.58	1.06	0.43	-59.43	3
2	Tobacco Products	-	-	-	-	-	-	0	0	-	-
3	Textiles	-	86	-	21.29	-	-	0	0.88	-	1
4	Wood and Wood Products Furniture Fixture	02	02	2.30	0.50	-	-78.26	0.43	0.29	-32.56	3
5	Paper and Paper Products	-	03	-	0.74	-	-	0	0.87	-	1
6	Leather and Leather Products	-	-	-	-	-	-	0	0	-	-
7	Rubber, Plastic and Petroleum	13	02	14.94	0.50	-84.62	-96.65	1.84	0.65	-64.67	3
8	Chemical and Chemical Products	-	263	-	65.10	-	-	0	1.16	-	2
9	Cement and Clay Work	02	01	2.30	0.25	-50.00	-89.14	1.08	0.44	-59.26	3
10	Basic Metal Industries	02	02	2.30	0.50	00	-76.26	1.30	0.47	-63.85	3
11	Metal Products	22	09	25.29	2.23	-59.10	-91.18	0.89	1.38	55.06	2
12	Electrical Machinery	-	03	-	0.74	-	0	0	0.97	-	1
13	Transport Equipment	08	07	9.20	1.73	-12.5	-81.20	1.44	0.83	-42.36	3
14	Repair Service and Others	20	24	22.99	5.94	20.00	-74.16	0.80	0.72	-10.00	3
15	Total	87	404	100	100	364.37	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

TABLE 7.7
Location Quotient and Specialization Matrix in DHARI Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	-	02	-	4.88	-	-	0	4.29	0	2
2	Tobacco Products	-	02	-	4.88	-	-	0	6.43	0	2
3	Textiles	-	14	-	34.15	-	-	0	1.41	0	2
4	Wood and Wood Products Furniture Fixture	-	02	-	4.88	-	-	0	2.86	0	2
5	Paper and Paper Products	-	01	-	2.44	-	-	0	2.86	0	2
6	Leather and Leather Products	-	01	-	2.44	-	-	0	5.15	0	2
7	Rubber, Plastic and Petroleum	-	-	-	-	-	-	0	0	-	-
8	Chemical and Chemical Products	-	18	-	43.90	-	-	0	0.79	0	1
9	Cement and Clay Work	-	01	-	2.44	-	-	0	4.29	0	2
10	Basic Metal Industries	-	-	-	-	-	-	0	0	-	-
11	Metal Products	-	-	-	-	-	-	0	0	-	-
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	-	-	-	-	-	-	0	0	-	-
14	Repair Service and Others	-	-	-	-	-	-	0	0	-	-
15	Total	-	41	-	100	-	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli

TABLE 7.8
Location Quotient and Specialization Matrix in KUNKAVAV-VADIA Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	08	01	24.24	4.00	-87.5	-83.5	1.24	3.52	183.87	2
2	Tobacco Products	-	01	-	4.00	-	-	0	5.28	-	2
3	Textiles		14	-	56.00	-	-	0	2.31	-	2
4	Wood and Wood Products Furniture Fixture	04	-	12.12	-	-	-	2.29	0	-	N.A.
5	Paper and Paper Products	-	-	-	-	-	-	0	0	-	-
6	Leather and Leather Products	-	-	-	-	-	-	0	0	-	-
7	Rubber, Plastic and Petroleum	02	-	6.06	-	-	-	0.75	0	-	N.A.
8	Chemical and Chemical Products	-	08	-	32.00	-	-	0	0.57	-	1
9	Cement and Clay Work	01	-	3.03	-	-	-	1.43	0	-	N.A.
10	Basic Metal Industries	-	-	-	-	-	-	0	0	-	-
11	Metal Products	09	-	27.27	-	-	-	0.96	0	-	N.A.
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	02	-	6.06	-	-	-	0.95	0	-	N.A.
14	Repair Service and Others	07	01	21.21	4.00	-85.71	-81.14	0.74	0.49	-33.78	1
15	Total	33	25	100	100	-24.24	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

TABLE 7.9
Location Quotient and Specialization Matrix in RAJULA Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	12	02	11.65	1.09	-83.33	-90.64	0.60	0.96	60.00	1
2	Tobacco Products	-	01	-	0.55	-	-	0	0.72	-	1
3	Textiles	-	41	-	22.40	-	-	0	0.92	-	1
4	Wood and Wood Products Furniture Fixture	05	03	4.85	1.64	-40.00	361.86	0.92	0.96	4.35	1
5	Paper and Paper Products	-	01	-	0.55	-	-	0	0.64	-	1
6	Leather and Leather Products	-	01	-	0.55	-	-	0	1.15	-	2
7	Rubber, Plastic and Petroleum	03	04	2.91	2.19	33.33	-24.74	0.36	2.89	702.78	2
8	Chemical and Chemical Products	-	99	-	54.10	-	-	0	0.97	-	1
9	Cement and Clay Work	01	02	0.97	1.09	100.00	12.37	0.46	1.92	317.39	2
10	Basic Metal Industries	02	03	1.94	1.64	50.00	-15.46	1.10	1.57	42.73	2
11	Metal Products	39	05	37.86	2.73	-87.18	-92.79	1.34	1.70	26.87	2
12	Electrical Machinery	-	03	-	1.64	-	---	0	2.16	-	2
13	Transport Equipment	02	05	1.94	2.73	150.00	40.72	0.31	1.31	322.58	2
14	Repair Service and Others	39	13	37.86	7.10	-66.67	-81.25	1.32	0.86	-0.35	3
15	Total	103	183	100	100	77.70	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli

As far as the location quotient for Babra taluka (Table 7.10) was concerned, in the year 1990-91, no industrial units got registered in the taluka, as a result, Location Quotient value of all fourteen groups of industries remained zero. However in the year 2009-10, seven industrial groups viz Textiles, Leather & Leather products, Chemical & Chemical products, Cement & Clay work, Basic Metals, Electrical Machinery and Transport Equipments had shown location quotient value greater than one.[63]. In this taluka, Food & Beverages, Tobacco products, Wood & Wood products, Paper & Paper products and Metal products can be regarded as future stars. Whereas, Leather & Leather products, Chemical & Chemical products, Cement & Clay work, Basic Metal, Electrical Machinery and Transport Equipments can be regarded as star group of industries.

Regarding Location Quotient of Jafarabad taluka (Table 7.11), in the year 1990-91 only one group of industries that is Food & Beverages had shown location quotient value greater than one, whereas due to absence of other industrial groups the location quotient was zero. The situation remained the same in the year 2009-10 also. From this it can be asserted that this taluka is one of the most industrially backward taluka of the district.

The location quotient for Lathi taluka (Table 7.12) reveals that in the year 1990-91, Food & Beverages, Wood & Wood products, Cement & Clay work, Basic Metal and Transport Equipments had registered Location Quotient greater than one, whereas seven groups of industries had shown location quotient value zero. However, by the year 2009-10, eight groups viz Food & Beverages, Tobacco products, Wood & Wood products, Paper & Paper products, Leather & Leather products, Rubber-Plastic & Petroleum, Basic Metal and Transport Equipments has shown location quotient value greater than one. As large numbers of oil mills have been set up in this taluka due to availability of ground nuts, the Food & Beverages group has generated more employment. In this taluka Textiles, Chemical & Chemical products and Metal products can be considered as future stars, whereas Tobacco products, Paper & Paper products, Leather & Leather products, Rubber-Plastic & Petroleum are star groups. While Food & Beverages, Wood & Wood products, Basic Metals and Transport Equipments are the former stars.

[63] This is basically due to easy availability of raw materials such as lime stone, clay and gypsum and raw cotton.

TABLE 7.10
Location Quotient and Specialization Matrix in BABRA Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	-	01	-	0.52	-	-	0	0.46	-	1
2	Tobacco Products	-	01	-	0.52	-	-	0	0.68	-	1
3	Textiles	-	47	-	24.35	-	-	0	1.00	-	N.A.
4	Wood and Wood Products Furniture Fixture	-	03	-	1.55	-	-	0	0.91	-	1
5	Paper and Paper Products	-	01	-	0.52	-	-	0	0.61	-	1
6	Leather and Leather Products	-	01	-	0.52	-	-	0	1.09	-	2
7	Rubber, Plastic and Petroleum	-	-	-	-	-	-	0	0	-	-
8	Chemical and Chemical Products	-	110	-	56.99	-	-	0	1.02	-	2
9	Cement and Clay Work	-	02	-	1.04	-	-	0	1.82	-	2
10	Basic Metal Industries	-	04	-	2.07	-	-	0	1.99	-	2
11	Metal Products	-	02	-	1.04	-	-	0	0.64	-	1
12	Electrical Machinery	-	02	-	1.04	-	-	0	1.37	-	2
13	Transport Equipment	-	05	-	2.59	-	-	0	1.24	-	2
14	Repair Service and Others	-	14	-	7.25	-	-	0	0.88	-	1
15	Total	-	193	-	100	-	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

TABLE 7.11

Location Quotient and Specialization Matrix in JAFARABAD Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	02	-	66.67	-	-	-	3.43	0	-	N.A.
2	Tobacco Products	-	-	-	-	-	-	0	0	-	-
3	Textiles	-	-	-	-	-	-	0	0	-	-
4	Wood and Wood Products Furniture Fixture	-	-	-	-	-	-	0	0	-	-
5	Paper and Paper Products	-	-	-	-	-	-	0	0	-	-
6	Leather and Leather Products	-	-	-	-	-	-	0	0	-	-
7	Rubber, Plastic and Petroleum	-	-	-	-	-	-	0	0	-	-
8	Chemical and Chemical Products	-	-	-	-	-	-	0	0	-	-
9	Cement and Clay Work	-	-	-	-	-	-	0	0	-	-
10	Basic Metal Industries	-	-	-	-	-	-	0	0	-	-
11	Metal Products	-	-	-	-	-	-	0	0	-	-
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	-	-	-	-	-	-	0	0	-	-
14	Repair Service and Others	01	-	33.33	-	-	-	1.16	0	-	N.A.
15	Total	03	-	100	-	-	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

TABLE 7.12
Location Quotient and Specialization Matrix in LATHI Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	05	01	35.71	1.16	-80.00	-0.97	1.83	1.02	-44.26	4
2	Tobacco Products	-	01	-	1.16	-	-	0	1.53	-	2
3	Textiles	-	19		22.09	-	-	0	0.91	-	1
4	Wood and Wood Products Furniture Fixture	02	02	14.29	2.33	00	-0.84	2.70	1.36	-49.63	4
5	Paper and Paper Products	-	01	-	1.16	-	-	0	1.36	-	2
6	Leather and Leather Products	-	01	-	1.16	-	-	0	2.45	-	2
7	Rubber, Plastic and Petroleum	-	01	-	1.16	-	-	0	1.53	-	2
8	Chemical and Chemical Products	-	45	-	52.33	-	-	0	0.94	-	1
9	Cement and Clay Work	01	-	7.14	-	-		3.37	0	-	N.A.
10	Basic Metal Industries	01	02	7.14	2.33	100.00	-67.37	4.04	2.23	-44.80	4
11	Metal Products	-	01	-	1.16	-	-	0	0.72	-	1
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	02	03	14.29	3.49	50.00	-75.58	2.25	1.67	-25.78	4
14	Repair Service and Others	03	09	21.43	10.47	200.00	-51.14	0.75	1.27	69.33	2
15	Total	14	86	100	100	514.29	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

If we consider location quotient for Savarkundala taluka (Table 7.13), for the year 1990-91, no industrial units were registered, as a consequence, location quotient value for all groups in this year remains zero for this taluka. But, in the year 2009-10, eight groups of industries like Food & Beverages, Tobacco products, Textiles, Paper & Paper products, Leather & Leather products, Rubber-Plastic & Petroleum and Transport Equipments has registered location quotient value greater than one. This taluka is mainly dependent upon its agriculture and forest resources. Thus all agro based and forest based industries contributed more to employment. Here, only Chemical & Chemical products can be considered as future star, while Food & Beverages, Tobacco products, Textiles, Wood & Wood products, Paper & Paper products, Leather & Leather products, Rubber-Plastic & Petroleum and Transport Equipments are star industrial groups.

The location quotient for Bagasara taluka (Table 7.14) shows that, only Food & Beverages group had location quotient value greater than one in the year 1990-91, the rest had zero value of location quotient. However, by the year 2009-10, three groups viz Food & Beverages, Textiles and Wood & Wood products has the location quotient value greater than one. Like Savarkundala taluka this taluka is also mainly dependent upon on agriculture and forest resources. There is high supply of timber in this taluka; as a result Wood product has the highest location quotient value in this taluka in the district. Here, Food & Beverages, Textiles and Woods and Wood products are star industrial groups. None of the group can be categorized as future star in this taluka.

In Table 7.15 the location quotient for Khambha taluka is presented. This taluka is one of the industrially most backward taluka of the district. In the year 1990-91, four industrial groups viz Wood & Wood products, Rubber-Plastic & Petroleum, Cement & Clay work and Transport Equipments had the location quotient value greater than one, while seven groups had zero location quotient value. However, in the year 2009-10, since no industrial unit got registered in the taluka, so no additional employment was generated by industrial sector in this taluka in this particular year, and thus their location quotient value remained zero.[64]

[64] For the same reason, the specialization matrix could not be worked out.

TABLE 7.13

Location Quotient and Specialization Matrix in SAVARKUNDALA Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	-	01	-	1.50	-	-	0	1.01	-	2
2	Tobacco Products	-	01	-	1.50	-	-	0	1.52	-	2
3	Textiles	-	22	-	25.29	-	-	0	1.04	-	2
4	Wood and Wood Products Furniture Fixture	-	02	-	2.30	-	-	0	1.35	-	2
5	Paper and Paper Products	-	01	-	1.50	-	-	0	1.35	-	2
6	Leather and Leather Products	-	01	-	1.50	-	-	0	2.42	-	2
7	Rubber, Plastic and Petroleum	-	01	-	1.50	-	-	0	1.52	-	2
8	Chemical and Chemical Products	-	41	-	47.13	-	-	0	0.85	-	1
9	Cement and Clay Work	-	-	-	-	-	-	0	0	-	-
10	Basic Metal Industries	-	-	-	-	-	-	0	0	-	-
11	Metal Products	-	-	-	-	-	-	0	0	-	-
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	-	02	-	2.30	-	-	0	1.10	-	2
14	Repair Service and Others	-	15	-	17.24	-	-	0	2.09	-	2
15	Total	-	87	-	100	-	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

TABLE 7.14

Location Quotient and Specialization Matrix in BAGASARA Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	04	01	57.14	12.5	-75.00	-78.12	2.94	10.99	273.81	2
2	Tobacco Products	-	-	-	-	-	-	0	0	-	-
3	Textiles	-	02	-	25.00	-	-	0	1.03	-	2
4	Wood and Wood Products Furniture Fixture	-	02	-	25.00	-	-	0	14.65	-	2
5	Paper and Paper Products	-	-	-	-	-	-	0	0	-	-
6	Leather and Leather Products	-	-	-	-	-	-	0	0	-	-
7	Rubber, Plastic and Petroleum	-	-	-	-	-	-	0	0	-	-
8	Chemical and Chemical Products	-	-	-	-	-	-	0	0	-	-
9	Cement and Clay Work	-	-	-	-	-	-	0	0	-	-
10	Basic Metal Industries	-	-	-	-	-	-	0	0	-	-
11	Metal Products	-	-	-	-	-	-	0	0	-	-
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	-	-	-	-	-	-	0	0	-	-
14	Repair Service and Others	03	03	42.86	37.5	00	-12.51	1.49	4.55	205.37	2
15	Total	07	08	100	100	-	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

TABLE 7.15

Location Quotient and Specialization Matrix in KHAMBHA Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	06	-	16.67	-	-	-	0.86	0	-	N.A
2	Tobacco Products	-	-	-	-	-	-	0	0	-	-
3	Textiles	-	-	-	-	-	-	0	0	-	-
4	Wood and Wood Products Furniture Fixture	02	-	5.56	-	-	-	1.05	0	-	N.A.
5	Paper and Paper Products	-	-	-	-	-	-	0	0	-	-
6	Leather and Leather Products	-	-	-	-	-	-	0	0	-	-
7	Rubber, Plastic and Petroleum	05	-	13.89	-	-	-	1.71	0	-	N.A.
8	Chemical and Chemical Products	-	-	-	-	-	-	0	0	-	-
9	Cement and Clay Work	01	-	2.78	-	-	-	1.31	0	-	N.A.
10	Basic Metal Industries	-	-	-	-	-	-	0	0	-	-
11	Metal Products	10	-	27.78	-	-	-	0.98	0	-	N.A.
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	04	-	11.11	-	-	-	1.75	0	-	N.A.
14	Repair Service and Others	08	-	22.22	-	-	-	0.78		-	N.A.
15	Total	36	-	100	-	-	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

TABLE 7.16
Location Quotient and Specialization Matrix in LILIA Taluka

Sl No.	Industry Group	Employment (Absolute)		Employment (% Share)		Employment Change		Location Quotient		Location Quotient Change	Specialization Matrix
		1990-91	2009-10	1990-91	2009-10	(Absolute)	(% Share)	1990-91	2009-10		
1	Food Products and Beverages	-	01	-	3.85	-	-	0	3.38	-	2
2	Tobacco Products	-	01	-	3.85	-	-	0	5.07	-	2
3	Textiles	-	11	-	42.31	-	-	0	1.74	-	2
4	Wood and Wood Products Furniture Fixture	-	02	-	7.69	-	-	0	4.51	-	2
5	Paper and Paper Products	-	01	-	3.85	-	-	0	4.51	-	2
6	Leather and Leather Products	-	-	-	-	-	-	0	0	-	-
7	Rubber, Plastic and Petroleum	-	-	-	-	-	-	0	0	-	-
8	Chemical and Chemical Products	-	04	-	15.38	-	-	0	0.28	-	1
9	Cement and Clay Work	-	-	-	-	-	-	0	0	-	-
10	Basic Metal Industries	-	-	-	-	-	-	0	0	-	-
11	Metal Products	-	-	-	-	-	-	0	0	-	-
12	Electrical Machinery	-	-	-	-	-	-	0	0	-	-
13	Transport Equipment	-	-	-	-	-	-	0	0	-	-
14	Repair Service and Others	-	06	-	23.07	-	-	0	2.80	-	2
15	Total	-	26	-	100	-	-	-	-	-	-

Source: Compiled from Various Issues of District Industries Centre, Amreli.

In the year 1990-91, no industrial units were registered in Lilia taluka. As a result location quotient value for all fourteen groups was zero that is presented in table 7.16. But, in the year 2009-10, Food & Beverages, Tobacco products, Textiles, Wood & Wood products and Paper & Paper products has the location quotient value greater than one, while seven groups has the quotient value zero in this year. Like Bagasara taluka, this taluka also has vast agriculture and forest resources. As a result, Wood & Wood products, Paper & Paper products and Tobacco products have easy access to necessary raw material, and thus, their contribution in the employment generation is greater than other groups. For this taluka Food & Beverages, Tobacco products, Textiles, Wood & Wood products and Paper & Paper products can be categorized as star industrial groups, whereas Chemical & Chemical products can considered to be future star group.

From the analysis above it is clear that, there has been a shift in the relative significance of a particular industry in a particular taluka. Further, it is also evident that except few talukas, majority of talukas has shown an improvement in the number of industries having location quotient value greater than one. Among eight talukas of the district, different industrial groups emerged as the future stars. This shows that the district has a bright scope to develop those industrial groups in different talukas, so as to minimize the industrial disparity.

After having analysed of location quotient of industries in this section, in the next section, the taluka wise and group wise compound growth rate and instability index has been estimated. This will provide an idea of inter taluka industrial variation in Amreli district. This estimation is undertaken on the basis of several parameters as per the methodology described in the previous chapters.

V INTER-TALUKA INDUSTRIAL DISPARITY IN AMRELI DISTRICT:

The district of Amreli is considered as highly backward in the state in terms of number of industries, investment, and employment in manufacturing sector. From the foregone analysis it is also apparent that, the Amreli district is not only industrially backward, but whatever industrial development has been taken place it is not evenly distributed in all eleven talukas. A clear picture will emerge on the basis of compound annual growth rate analysis. The compound growth rate of all talukas of all the district in terms of registered factories, employment and investment during the study period under

consideration is presented in table 7.17 (absolute & percentage share). This table depicts the fact that, during the study period, in terms of registered factories, high growth is recorded in Babra taluka (7.88) and the lowest in Bagasara taluka (-12.4). However, it is to be noted that except Babra taluka, all talukas of the districts have registered negative growth rate during the study period, as a result the district average is also negative. In terms of employment also, the highest growth rate is recorded in Babra taluka (15.06) and the lowest in Bagasara taluka (-16.62). However, the district average is -1.49. Only two talukas have shown higher growth rate than the district average, they are Babra and Amreli district, other talukas have shown lower growth than the district average. The situation is similar in terms of investment also, highest growth rate is found in Babra taluka (25.8), whereas lowest is in case of Bagasara taluka (-13.91). However, only Babra and Amreli talukas have shown higher growth rate than the district average (13.21), rest all talukas have registered lower growth rate than the district average.[65] Thus in the three parameters, Babra taluka have shown positive and higher growth rate, whereas Dhari, Bagasara, Jafarabad, Khambha and Kunkavav Vadia have shown negative growth rate. Bagasara taluka in all parameters have shown lowest growth rate. If we consider the percentage share, the trend is similar.

If the group wise growth rate is taken into account, then table 7.18 (absolute & percentage share) shows that in terms of registered factories, high growth rate is recorded in Basic Metal (4.29), Chemical & Chemical products (4.22), whereas the lowest is found in Metal products (-13.8) and Food & Beverages (-11.34). In terms of group wise employment, a high growth rate is found in Chemical & Chemical products (11.15) and Textiles (4.82), whereas lowest is recorded in Cement & Clay work (-13.7) and Metal products (-11.88). So far as group wise investment is concerned, a high growth rate is seen in Textiles (21.19) and Food & Beverages (10.53), whereas the lowest is found in Wood & Wood products (-5.25) and Metal products (-4.49). It is pertinent to note that Chemical & Chemical products have shown positive and higher growth rate in all the three parameters. And Transport Equipment too has shown a positive growth rate in selected parameters. Whereas Wood & Wood products, Cement & Clay work and

[65] In the study of Amreli district out of eleven talukas, time series data of two talukas namely Savarkundala and Lilia are not available.

TABLE 7.17
Taluka wise Compound Growth Rate of Selected Variables of Amreli District From 1990-91 to 2009-10

Sr No.	Talukas	CGR Of Registered Factories Absolute (%)	CGR Of Employment In Registered Factories Absolute (%)	CGR Of Investment (Rs In Lakhs) Absolute (%)
1	Amreli	-3.84 (4.33)	2.62(4.17)	19.47(5.53)
2	Dhari	-3.03(0.84)	-3.00(-1.53)	-0.98(-12.54)
3	Kunkavav Vadia	-9.68(-6.07)	-13.8(-12.49)	-10.81(-21.22)
4	Rajula	-7.82(-4.14)	-4.87(-3.43)	7.64(-4.92)
5	Babra	7.88 (12.19)	15.06(16.81)	25.80(11.12)
6	Jafarabad	-6.98 (-3.26)	-6.94(-5.53)	-3.79(-15.02)
7	Lathi	-6.66(-2.93)	-6.35(-4.93)	3.91(-8.21)
8	Savarkundala	--	--	--
9	Bagasara	-12.40 (-8.90)	-16.62(-15.35)	-13.91(-23.87)
10	Khambha	-9.11(-5.48)	-13.62(-12.31)	-9.92(-20.43)
11	Lilia	--		--
12	Total	-3.84	-1.49	13.21

Source: Compiled from Various Issues of District Industries Centre, Amreli.

Parenthesis in the bracket indicates the growth rates in terms of percentage share

TABLE 7.18

Group wise Compound Growth Rate of Selected Variables in Amreli District From 1990-91 to 2009-10

Sr No.	Item	CGR of Registered Factories Absolute (%)	CGR of Employment In Registered Factories Absolute (%)	CGR of Investment (Rs In Lakhs) Absolute (%)
1	Food Products and Beverages	-11.34 (-7.81)	-8.06 (-6.71)	10.53 (-2.45)
2	Textiles	-4.39 (-0.58)	4.82 (6.37)	21.19 (6.97)
3	Wood and Wood Products Furniture Fixture	-9.42 (-5.81)	-10.04 (-8.71)	-5.25 (-16.37)
4	Paper and Paper Products	----	----	----
5	Leather and Leather Products	----	----	----
6	Rubber, Plastic and Petroleum	-4.01 (-0.19)	0.04 (1.52)	5.34(-7.03)
7	Chemical and Chemical Products	4.22 (8.37)	11.15(12.80)	6.60(-5.91)
8	Cement and Clay Work	-10.25 (-6.67)	-13.7 (-12.42)	-4.30(-15.54)
9	Basic Metal Industries	4.29 (8.44)	-2.20(-0.75)	7.69(-4.96)
10	Metal Products	-13.8 (-10.37)	-11.88 (-10.57)	-4.49(-15.71)
11	Transport Equipment	1.83 (5.88)	1.47(2.97)	8.91(-3.88)
12	Repair Service and Others	0.27 (4.26)	2.02 (-0.57)	5.93(-6.51)
13	Total	-3.83	-1.46	13.3

Source: Compiled from Various Issues of District Industries Centre, Amreli.

Parenthesis in the bracket indicates the growth rates in terms of percentage share

TABLE 7.19

Taluka wise Instability Index Value of Selected Variables of Amreli District From 1990-91 to 2009-10

Sr No.	Talukas	Index Value Of Registered Factories Absolute (%)	Index Value Of Employment In Registered Factories Absolute (%)	Index Value Of Investment (Rs In Lakhs) Absolute (%)
1	Amreli	117.80 (119.13)	95.79 (102.12)	99.36 (75.38)
2	Dhari	447.60 (353.99)	392.96 (361.63)	541.09 (629.11)
3	Kunkavav Vadia	327.69 (364.53)	359.45 (445.23)	401.38 (537.94)
4	Rajula	334.92 (334.92)	822.10 (578.99)	940.78 (689.42)
5	Babra	303.20 (305.08)	468.17 (476.72)	885.30(1026.43)
6	Jafarabad	361.48 (303.25)	563.80 (458.87)	569.81 (497.89)
7	Lathi	462.01 (452.33)	604.35 (589.34)	615.70 (547.67)
8	Savarkundala	---	--	--
9	Bagasara	536.57 (502.75)	496.05 (487.97)	643.23 (646.99)
10	Khambha	707.03 (684.52)	449.51 (526.40)	563.87 (655.76)
11	Lilia	--	----	--
12	Total	42.02	64.85	90.62

Source: Compiled from Various Issues of District Industries Centre, Amreli.

Parenthesis in the bracket indicates the index values in terms of percentage share

TABLE 7.20

Group wise Instability Index Value of Selected Variables in Amreli District From 1990-91 to 2009-10

Sr No.	Item	Index Value Of Registered Factories Absolute (%)	Index Value Of Employment In Registered Factories Absolute (%)	Index Value Of Investment (Rs In Lakhs) Absolute (%)
1	Food Products and Beverages	150.51 (141.05)	196.07(179.05)	217.86 (205.89)
2	Textiles	429.23 (441.72)	529.84 (531.64)	558.64 (470.54)
3	Wood and Wood Products Furniture Fixture	200.63 (195.91)	203.72 (247.70)	192.51 (289.37)
4	Paper and Paper Products	----	--	--
5	Leather and Leather Products	----	--	--
6	Rubber, Plastic and Petroleum	125.38 (160.52)	561.29 (587.21)	86.89 (296.74)
7	Chemical and Chemical Products	383.58 (379.61)	1294.37(1076.56)	209.09 (519.05)
8	Cement and Clay Work	271.66 (261.38)	325.56 (343.22)	367.76 (484.75)
9	Basic Metal Industries	233.27 (217.05)	276.59 (321.54)	422.72 (558.23)
10	Metal Products	154.67 (158.25)	224.17 (229.43)	245.98 (131.10)
11	Transport Equipment	443.68 (447.10)	522.26 (670.86)	394.64 (500.28)
12	Repair Service and Others	261.81(238.69)	178.83 (197.40)	316.46 (235.69)
13	Total	41.01	64.92	90.55

Source: Compiled from Various Issues of District Industries Centre, Amreli
Parenthesis in the bracket indicates the index values in terms of percentage share

Metal products have shown negative growth rate in all selected variables.[66] The results of percentage share, shows the similar kind of trends.

[66] Due to non availability of time series data, the growth trends for paper & paper products and leather & leather products could not be worked out.

Further in table 7.19 the instability index of registered factories, employment and investment is presented. In terms of registered factories, low instability index value is found in Amreli taluka (117.8) and high in Khambha taluka (707.03). In terms of employment low instability index value is found in Amreli taluka (95.79) and high in Rajula taluka (822.1).Whereas in case of investment, low instability index value in Amreli taluka (99.36) and high in Rajula taluka (940.78). Thus, in all selected parameters Amreli taluka shows low instability index value. The percentage share of taluka wise instability index shows the similar results.

The group wise factories instability index is presented in Table 7.20 (absolute & percentage share). In registered factories, low instability index value is recorded in Rubber-Plastic & Petroleum (125.38) and high is found in Transport Equipments (443.68). So far as employment is concerned, low instability index value is in Food & Beverages (196.07) and highest is recorded in Chemical & Chemical products (1294.37). However, in case of group wise investment, low instability value is seen in Wood & Wood products (192.51) and high in Basic Metal (422.72). Percentage share of these selected variables shows almost similar results.

In the forgone section, we had analyzed compound growth rate and instability index separately. Nevertheless, to reap the benefits of industrial development in the long run in the region, we need to examine whether these growth rates in industrial sector are sustainable or not. The aim is to have a high growth in industrial sector of the district; at the same time instability should be lower so as to have a sustained growth in the industrial sector for a long period of time. This necessitates an analysis of growth and instability together. Considering growth and instability together, the ideal situation is to have higher growth rate with lower instability index value.

As mentioned earlier, in terms of registered factories Babra taluka registered high growth and in this taluka instability index is relatively lower, thus it can be the preferred taluka in the district with regard to registered factories.

In case of employment in factories, high growth rate was found in Babra taluka but it had registered a high instability index value. Instead, Amreli taluka although had a is relatively lower growth rate but the instability index value is lower. Thus, this taluka is an ideal destination from employment generation point of view.

In case of investment, the high growth rate was found in Babra taluka but with high instability index value. In case of Amreli taluka, the growth rate is also high but with lower instability value, can be considered as ideal destination for investment in the long run.

In case of group wise registered factories, Basic Metal group registered high growth rate with low instability index value, is a favourable group.

In terms of employment, it was found that Chemical & Chemical products has registered high growth rate but with high instability value, not favourable situation. Transport Equipments though has lower but positive growth rate with low instability index value is more preferable group from employment point of view.

As far as investment is concerned, a high growth was found in case of Textiles but instability was also found higher, which is not favourable scenario. The Rubber-Plastic & Petroleum though has relatively low growth rate but it is positive and with low instability value, would be preferred group from investment point of view.

In totality, it can be stated that, if the aim of industrial development is to reduce regional disparity by generating employment, then Amreli taluka should be preferred taluka. In terms of industrial group the preference should be Transport Equipments. It needs to be mentioned here that, Amreli taluka is dominated by industrial cluster producing Transport Equipments.

VI CONCLUSION:

Industrial development is an essential condition for economic development of any region. However, industries have a tendency to concentrate in few favourable regions, which leads to disparities in regional development. Therefore, removal of regional disparities through the promotion of industries in the backward regions has become a vital tool for the policy makers in recent years. Even the government of Gujarat has given high priority to industrial development in the state plans to eliminate regional disparity as well as to achieve growth in employment opportunities in all the districts of the state. It is in this context that in the present chapter an attempt was made to analyze the industrial location and territorial development in the district of Amreli. This chapter begins with the socio- economic background and the industrial scenario of Amreli district. It is apparent from the data presented that most of the industrial activities in the district have taken

place in few talukas such as Amreli, Dhari, Rajula and Lathi talukas. Consequently, these talukas (territories) which had industrial concentration, developed faster and other talukas remained industrially backward region. Thus the location of industries like in Vadodara district is not optimum in terms of uniformity in Amreli district also.

However, labour as well as capital intensity has increased in almost all talukas. Thus, increased use of capital has not led to the displacement of the labour in the district.

An analysis of industrialisation was undertaken in two ways. Firstly, an attempt had been made to find out taluka wise specialization and concentration of industrialisation within the district by working out location quotient. The analysis of the location quotient, paves the way for designing the specialization matrix and the identification of the future stars. Knowing the future star industry in a region, would be helpful in undertaking appropriate developmental approach for regional development. Secondly, the intra-district industrial variation has been analyzed by computing compound growth rate and instability index in order to find out whether the observed growth rate in the industrial development is justifiable or not.

Analyzing location quotient exposes the following:

i. Eight talukas out of eleven have industries which can be considered to be future stars and among these eight talukas industries from different groups constitute the future stars. The talukas of Amreli (Textiles, Paper & Paper products and Electrical Machinery), Dhari (Chemical & Chemical products), Kunkavav Vadia (Chemical & Chemical products), Rajula (Food & Beverages, Tobacco products, Textiles, Wood & Wood products, Paper & Paper products and Chemical & Chemical products), Babra (Food & Beverages, Tobacco products, Wood & Wood products, Paper & Paper products and Metal products), Lathi (Textiles, Chemical & Chemical products and Metal products), Savarkundala(Chemical & Chemical products) and Lilia(Chemical & Chemical products) are the future stars.

ii. In nine talukas, one or the other industrial groups can be considered as star groups- i.e. those groups which have location quotient value greater than one and has a rising trend in location value. These talukas are Amreli (Chemical & Chemical products and Metal products), Dhari (Food & Beverages, Tobacco products, Textiles, Wood & Wood products, Paper & Paper products, Leather products and Cement & Clay works), Kunkavav Vadia (Food & Beverages,

Tobacco products and Textiles), Rajula (Leather products, Rubber-Plastic & Petroleum, Cement & Clay work, Basic Metal , Metal products, Electrical Machinery and Transport Equipments), Babra (Leather products, Chemical & Chemical products, Cement & Clay work, Basic Metal, Electrical Machinery and Transport Equipments),Lathi (Tobacco products, Paper & Paper products, Leather products and Rubber-Plastic & Petroleum), Savarkundala (Food & Beverages, Tobacco products, Textiles, Wood & Wood products, Paper & Paper products, Leather products, Rubber-Plastic & Petroleum and Transport Equipments), Bagasara (Food & Beverages Textiles and Wood & Wood products) and Lilia (Food & Beverages, Tobacco products, Textiles, Wood & Wood products and Paper & Paper products).

iii. Only one taluka i.e. Amreli has an industrial group which can be considered as declining star. The industrial groups are Food & Beverages, Wood & Wood products, Rubber-Plastic & Petroleum, Cement & Clay work, Basic Metal along with Transport Equipments.

iv. Only one taluka i.e. Lathi has an industrial groups that can be categorized as former star, which means its location quotient value had a declining trend. The industrial groups are Food & Beverages, Wood & Wood products, Basic Metal as well as Transport Equipments.

It can be affirmed from the above that the government should provide special incentives to future stars and star industrial groups in different talukas, so as to generate more employment especially in those talukas which are industrially backward and has low industrial employment. This will go long way to reduce territorial industrial disparity. It is also evident that in majority of talukas we have one or other industrial groups as future star or star groups. Thus, the district has a wide scope for future industrial development.

If one looks at the **Growth trends and Instability index value**, then the following emerges:

i. The highest growth rate is found in Babra taluka for the registered factories, employment and investment, whereas the lowest is in Bagasara taluka for the same variables.

ii. For the group-wise registered factories, the highest growth rate is recorded in Basic Metal and the lowest in Metal products.

iii. As far as the group-wise employment was concerned, the highest growth rate is found in Chemical & Chemical products, while the lowest is found in Cement & Clay work.

iv. In terms of group wise investment, the highest growth rate is seen in Textiles and the lowest is seen in Wood & Wood products.

v. Instability index value reveals that for registered factories the lowest index is found in Amreli and highest in Khambha taluka.

vi. The lowest growth rate for employment and investment are recorded in Amreli taluka and highest in Rajula taluka.

vii. The lowest index value in case of group-wise registered factories are found in Rubber-Plastic & Petroleum and higher in Transport Equipments.

viii. The lower index value for group-wise employment is found in Food & Beverages and higher index value is found in Chemical & Chemical products.

ix. The low index value for industry group-wise investment is recorded in Wood & Wood products, while high in Basic Metal.

x. Analyzing the growth and instability together, it is evident that in order to generate more employment with high growth with low instability index, Amreli taluka would be a model taluka in the district and in case of industrial group Transport Equipments would be the ultimate group in the district.

From the analysis of location quotient, growth and instability, it is apparent that, an inter-taluka industrial disparity still exists during the study period. More industrial concentration of industrial activities is found in Amreli, Rajula, Lathi, Dhari and Babra talukas. Whereas, in the talukas of Lilia, Khambha, Bagasara, Jafarabad and Kunkavav Vadia industrial activities have been very slow. But at the same time it is also evident that reforms have led to dispersal of industries from Amreli and Lathi to Rajula taluka.

In sum it can be concluded from the above that reforms have to some extent reduced territorial industrial disparity in Amreli district.

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FIGURE 7.1

Taluka wise Compound Growth Rate of Selected Variables of Amreli District From 1990-91 to 2009-10

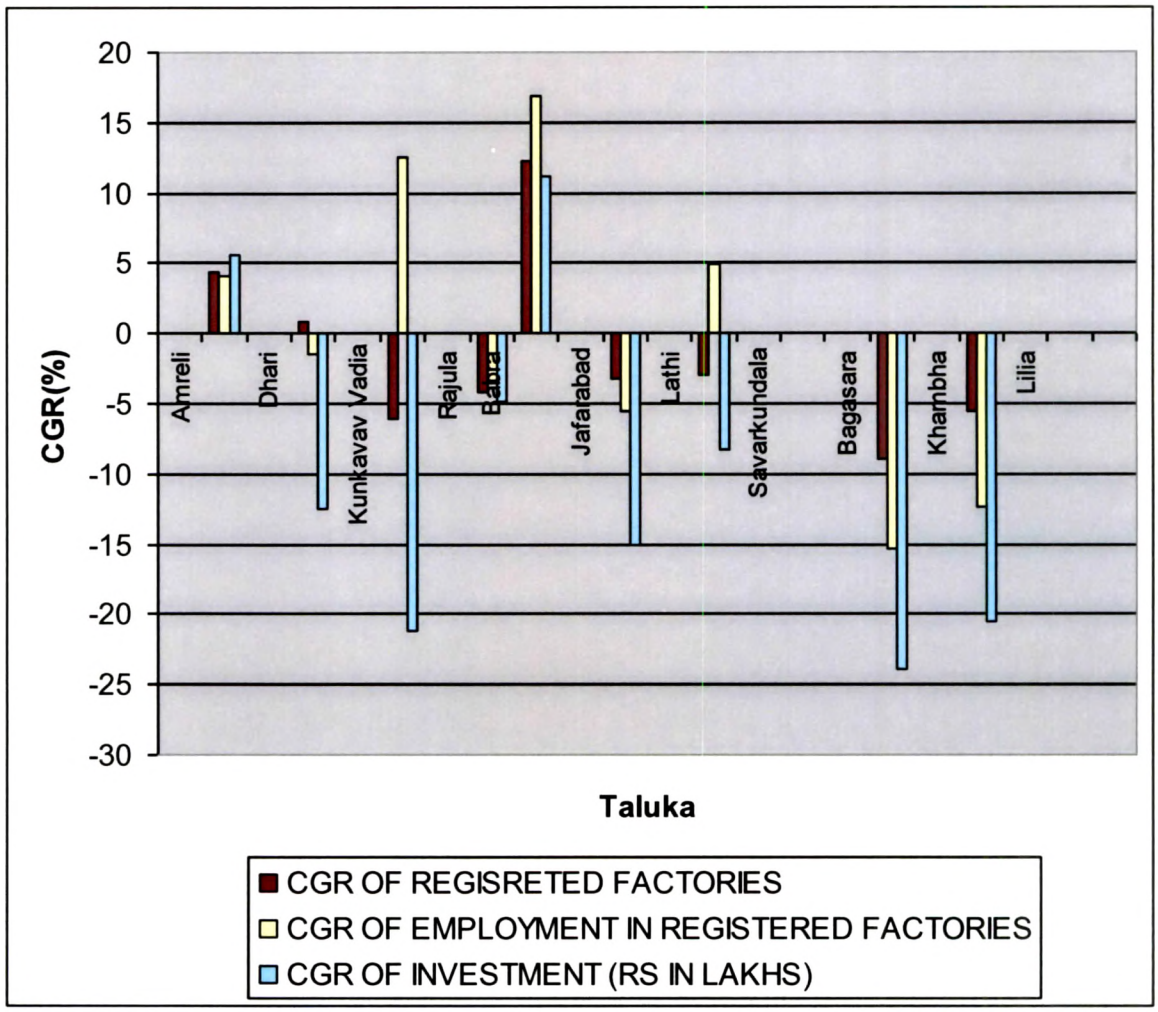

FIGURE 7.2

Taluka wise Instability Index Value of Selected Variables of Amreli District From 1990-91 TO 2009-10