



ASSESSMENT OF THE LEVELS OF REGIONAL DEVELOPMENT IN HARYANA-2011

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ABSTRACT

This paper is an attempt to assess the levels of regional development in Haryana in 2011. The basic unit of analysis is district. There are eight variables chosen for the measurement of the regional development levels in Haryana which are: Share of urban population, Literacy Rate, No. of Recognized High/Sr. Sec. Schools per 100 km² area, No. of Medical Institutions Per 100 km² area, No. of Medical Institutions Per Lakh Population, No. of Rural Development Co-operative Societies per Lakh Population, No. of registered working factories per 100 km² and Workers employed in registered working factories per Lakh Population. Further, Z- Scores have been computed for district wise scores of each indicator to prepare a composite index of regional development. By this exercise, it has been observed that Faridabad is the most developed district of the state, whereas Mewat is the most backward district of Haryana.

KEYWORDS : Regional development, Indicators, Z-Score, Composite index

INTRODUCTION

Development is a relative concept and is defined differently by scholars. According to **Misra (1984)**, "Development means an increase in material welfare through productivity and increase in social welfare through education and health and also an improvement in the social content of human life." Regional development is a process aiming at human welfare not only in aggregate terms, but also in an equitable manner among areas and groups of people. It attempts to secure the best conditions and possibilities for comprehensive development for all, eliminates inter-regional disparities in the quality of life and makes the best possible use of the natural endowments and human genius of a region. The main objective of this paper is to assess the imbalances in the regional development in Haryana in 2011.

Study Area-Haryana

Haryana is an important state of North Western India which consists of 22 districts. Physiographically, the central part of Haryana is largely plain and featureless whereas the western part is traversed by numerous sand dunes. The total population of Haryana as per census 2011 is 2.53 crore in which male and female are 1.35 and 1.18 crore respectively.

Source of Data and Research Methodology

The present study is based on 2011 census data. The data for this purpose is collected from the Census books and Statistical Abstracts of Haryana for the year of 2011. The basic unit of analysis is district. There are 8 variables chosen for the study of regional development levels in Haryana which are: Share of urban population, Literacy Rate, No. of Recognized High/Sr. Sec. Schools per 100 km² area, No. of Medical Institutions Per 100 km² area, No. of Medical Institutions Per Lakh Population, No. of Rural Development Co-operative Societies per Lakh Population, No. of registered working factories per 100 km² and Workers employed in registered working factories per Lakh Population. Further, Z-Scores have been computed for district wise scores of each indicator to prepare a composite index of regional development. Arc-GIS (version 9.3) software has been used to prepare the maps.

Selected Indicators of Regional Development

In India, a variety of socio- economic indicators have been used to assess the progress and identification of backwardness and to measure regional disparities. **Mishra and Tripathi (1991)** have made a modest attempt to measure the level of road transport development and its impact on the socio- economic transformation of Basti district of Uttar Pradesh. For indicators were selected to measure the road development: - (i) length of roads/ 100 km², (ii) length of road / lakh population, (iii) percentage of the villages on road and (iv) percentage of the villages from beyond 3 kms of the roads. **Dayanand (1998)** have chosen the 19 variables to bring out the relationship of road transport and regional development in the Mandya district of Karnataka state. **Mahajan (1998)**

explained the key role of road transport in increasing the level of economic development in Himachal Pradesh. **Mangat and Gill (2015)** seek a correlation between road transport development and various regional development indicators such as gross value from agriculture per hectare, number of workers employed in registered factories, Number of students per Lakh population in recognized schools, number of hospital beds per lakh population and share of urban population in Haryana. Here, eight indicators (district-wise) of regional development have been considered in the present study and further grouped into three broad categories to depict the regional development in the area.

A. Demographic Characteristics:

1. Share of urban population in percentage
2. Literacy Rate in percentage

B. Social Characteristics:

3. No. of Recognized High/Sr. Sec. Schools per 100 km² area
4. No. of Medical Institutions (Allopathic) Per 100 km² area
5. No. of Medical Institutions (Allopathic) Per Lakh Population
6. No. of Rural Development Co-operative Societies per Lakh Population

C. Economic Characteristics:

7. No. of registered working factories per 100 km²
8. Workers employed in registered working factories per Lakh Population

Table- 1, Haryana: Districtwise Composite Index of Regional Development, 2011.

Sr. No.	Districts	A	B	C	D	E	F	G	H	(Z-Score)
1	Panchkula	1.30	1.06	-0.61	0.57	0.32	4.32	-0.30	-0.12	6.54
2	Ambala	0.63	0.99	0.31	0.00	-0.32	-0.33	-0.18	-0.34	0.76
3	Yamuna Nagar	0.31	0.37	0.31	0.00	-0.32	-0.40	0.47	0.17	0.91
4	Kurukshetra	-0.2	0.04	-0.43	0.57	0.32	-0.27	-0.39	-0.58	-1.01
5	Kaithal	-0.6	-0.8	-0.98	0.00	0.97	-0.06	-0.47	-0.61	-2.73
6	Karnal	-0.2	-0.0	-0.06	-0.5	-0.32	-0.39	-0.28	-0.19	-2.02
7	Panipat	0.73	0.16	0.86	0.57	-0.97	-0.26	0.42	0.38	1.89
8	Sonapat	-0.1	0.67	0.86	1.15	0.65	0.01	-0.12	0.04	3.12
9	Jind	-0.6	-0.5	-0.43	0.00	0.65	-0.22	-0.47	-0.43	-2.1

10	Fatehabad	-0.86	-1.12	-1.35	-1.72	0.32	-0.24	-0.48	-0.58	-6.03
11	Sirsa	-0.53	-0.93	-1.53	-2.30	0.65	-0.01	-0.50	-0.53	-5.68
12	Hisar	-0.11	-0.50	-0.61	-0.57	0.65	-0.17	-0.42	-0.48	-2.21
13	Bhiwani	-0.82	0.04	-0.61	-1.15	1.29	-0.13	-0.50	-0.46	-2.34
14	Rohtak	0.49	0.60	0.49	0.57	0.65	-0.29	-0.31	-0.26	1.94
15	Jhajjar	-0.45	0.67	0.86	0.57	0.97	-0.32	-0.16	0.00	2.14
16	Mahendergarh	-1.13	0.37	-0.61	-0.57	0.65	-0.37	-0.50	-0.57	-2.73
17	Rewari	-0.45	0.88	0.86	0.57	0.65	0.01	-0.37	0.06	2.21
18	Gurgaon	2.07	1.22	1.60	0.00	-2.27	0.68	1.64	3.56	8.5
19	Mewat	-1.31	-3.11	-1.72	-0.57	-0.97	-0.58	-0.54	-0.68	-9.48
20	Faridabad	2.70	1.00	2.15	2.87	-2.27	-0.48	3.89	2.20	12.06
21	Palwal	-0.64	-0.94	0.68	-0.57	-1.29	-0.52	-0.53	-0.57	-4.38

Source: Computed by Author.

Here, Z- Scores have been computed for district wise scores of each indicator to prepare a composite index of regional development [Table- 1]. By this exercise, it has observed that Faridabad is the most developed district of the state, whereas Mewat is the most backward district of Haryana. Surprisingly, both these districts are located in the Southern part of the state. It is very clear that districts situated in the eastern sector of the state are more developed as compared to the districts located in the western sector of Haryana. Sonipat, Panipat, Gurgaon and Faridabad districts are the most developed districts of the state whereas Mewat, Palwal, Sirsa and Fatehabad are the least developed districts. Further, five areas of regional development have been identified and enlisted in table with their respective Z- scores values and number and names of districts in them [Table- 2 & Fig-1].

Category	Z - Score	No. of Districts	Name of Districts
Very Low	Below -6.01	2	Fatehabad, Mewat
Low	-6.01 to -2.00	9	Kurukshetra, Kaithal, Karnal, Jind, Sirsa, Hisar, Bhiwani, Mahendergarh, Palwal
Moderate	-2.01 to 2.00	4	Ambala, Yamunanagar, Panipat, Rohtak
High	2.01 to 6.00	3	Sonipat, Jhajjar, Rewari
Very High	Above 6.00	3	Panchkula, Gurgaon, Faridabad

Source: Compiled by Author.



Fig-1

i) Very High Level of Regional Development

Three districts namely, Panchkula, Gurgaon and Faridabad (located in north-eastern and southern parts of the state) by recording exceptionally very high composite index (Above 6.00) have been distinguished as areas of very high regional development. Such a high composite index recorded by these districts is due to very high percentage of urban population and high literacy rate. Also a large number of rural development co-operative societies/ lakh persons are recorded in Panchkula. As Faridabad and Gurgaon are located on the periphery of Delhi and Panchkula district, being located close to the state capital of Chandigarh are very prominent industrial districts of the state occupied by the higher strata of society.

ii) High Level of Regional Development

Sonipat, Jhajjar and Rewari districts have been included in the areas of high level of regional development. This high composite index recorded by these districts is due to high literacy rate, high number of recognized schools and medical institutions. Especially Sonipat and Jhajjar districts, being located in the NCR (National Capital Region) has a large number of registered working factories as well as workers employed in them.

iii) Moderate Level of Regional Development

By recording composite index ranging between -2.01 to 2.00, four districts namely Ambala, Yamunanagar, Panipat and Rohtak have emerged to be the areas of moderate level of regional development. The region includes industrial districts like Panipat and Yamunanagar, agriculturally and educationally important district like Rohtak whereas district Ambala is an important industrial centre and cantonment.

iv) Low Level of Regional Development

Nine districts namely Kurukshetra, Kaithal, Karnal, Jind, Sirsa, Hisar, Bhiwani, Mahendergarh and recording the composite index between -6.01 to -2.00 are included in the areas having low level of regional development. Mahendergarh and Palwal districts are located in the foothills of Aravallis whereas Bhiwani, Hisar and Mahendergarh districts are located in the semi arid area traversed by sand dunes. Jind, Kaithal, Karnal and Kurukshetra are the agriculturally dominant districts. Therefore, the composite index of regional development is also low.

v) Very Low Level of Regional Development

Very low composite indexes recorded by Mewat (-9.48) and Fatehabad districts (-6.03) have brought these districts under the category of very low level of regional development. Mewat district is dominant by Muslim population. The economy of Fatehabad is agriculturally based and industries are not very much developed in this district. That's why; it has very low level of regional development.

CONCLUSION

It is concluded that districts namely, Panchkula, Sonipat, Gurgaon, Faridabad, Jhajjar and Rewari (located in north-eastern, central and southern parts of the state) have been distinguished as areas of very high and high regional development (above 2.00) whereas district like Mewat, Palwal, Mahendergarh, Jind, Kaithal and Fatehabad etc. fall under the categories of low and very low level of regional development (below -2.00). By recording a composite index ranging between -2.01 to 2.00, four districts namely Ambala, Yamunanagar, Panipat and Rohtak have been emerged to be the areas of moderate level of regional development.

Finally, it is suggested that for the balanced regional development of the state, it is necessary to remove the existing disparities among different districts. More emphasis should be laid on the urbanization and development processes by providing infrastructural facilities such as medical,

educational, trade, commerce and banking etc. in extreme western, northern and southern parts of the state.

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