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Industrial Development in Hadauti Region: Status and Prospects

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ABSTRACT: Industrialization is the most important common goal of Third World countries. In these countries, it was thought that economic diversification through rapid industrialization was needed to free the economy from the clutches of poverty and unemployment. However, experience has shown that the industrialization of these countries does not help much in the transfer of surplus labour from agriculture and the regional distribution of development benefits. The concentration of industry in several pockets creates inequality in regional development. India's industrial development is very slow, and its main feature is that it is concentrated in some regions or blocks of the country. Therefore, there are interstate and intrastate disparities in industrial development, and the state government is working to correct the imbalance. As a result, many incentives have been introduced to attract and promote industries in these regions. In this context, it is essential to observe the spread of industrial development within the underdeveloped region and analyse its contribution to regional development. Therefore, the purpose of this study is to analyse the structure and scope of industrial development in the Hadauti region of Rajasthan and study the pattern of intrastate disparities of industrial development.

KEYWORDS: Industrialization, Intra-block, Disparities, Development, Composite index

I. INTRODUCTION

In India, regional disparities in development and income are a serious issue with economic, social, and political ramifications. The fact that there are large discrepancies between states is generally acknowledged, and it is also recognised as a problem that must be addressed by way of public policy. Since independence, several strategies and instruments have been used to decrease these discrepancies. Some, such as the Finance Commission, a constitutionally mandated body, and the Planning Commission, are permanent, while others, such as policies and programmes, are implemented on a regular basis to encourage the development of less developed areas and regions by providing preferential treatment in central public investment, as well as fiscal and financial concessions and incentives.

Although public policy instruments undoubtedly influence the growth of economic activity in different regions, the relative economic position of different regional entities is ultimately determined by the rate and pattern of economic growth, which is determined by several other factors, particularly local-specific factors. Industry is predicted to play a large role in both producing and alleviating differences among different regions, according to the prevalent view of modern economic development. Industry is viewed as the primary "engine of growth" (Kaldor, 1967), with industrial expansion being more susceptible to "cumulative causation" than other sectors (Myrdal, 1957).

According to the common conventional theory of regional development, industrial development, and thus overall economic development of distinct regions, is supposed to follow a path that eventually leads to "convergence" (Barro and Sala-i-Martin, 1990). To begin with, industry goes where industry is but when diminishing returns set in, it shifts to less developed places. Since agriculture's diminishing returns set in considerably sooner due to land fixity and technological restrictions, it is industry, that has a long history of increasing returns, that serves the levelling function once the process of its development begins in the backward areas.

Therefore, different regions with different base levels and development capabilities are subject to "cumulative causes". Not only do they grow differently due to internal factors, but the difference is exacerbated by the interaction between them through the mechanism of the "backwash effect" (Myrdal, 1957; Hirschman, 1958; Kaldor, 1970). Shortly after independence, it was recognized that the levels of economic development, especially industrial development, differed



significantly. Political mechanisms and means have been developed to reduce these disparities, especially in the industrial sector through the establishment of central public institutions. Did they promote industrial development in poor regions, thereby helping to reduce regional disparities in the degree of industrialization? This is indeed, state intervention policies have tended to favour more developed urbanized areas within the underdeveloped region (Lipton, 1977).

II. REVIEW OF LITERATURE

There are several studies investigating the patterns of interstate disparities in India's industrial development, covering different periods. In some early studies of the 1950s and 1960s, a reduction in inequality was observed (Dhar and Sastry, 1967; Sardamoni, 1969). Another study covering the period 1950-51-1975-76 (Mathur, 1983) found that the secondary industry followed an inverted U-shaped route, while reducing overall income inequality. However, another study at about the same time (Awasthi, 1991) found that interstate disparities in industrial development were narrowing. Another study (Marjit and Mitra, 1996) covering the period (1961– 62/1989–90) found that income disparities across Indian states are on the ascending part of the “inverted U-shaped curve”.

All the studies related to the post-reform period point out that: trends towards greater differences in industrial growth compared to developed area, as they were growing faster than the backward state (Bhattacharya and Sakthival, 2004). One of them (Nair, 2005) said this trend contrasted with the pre-reform period. Agricultural levels and growth are seen as different factors affecting both on the supply and demand side to influence the growth rate of the industry.

III. OBJECTIVES OF THE STUDY

This study examines the issues outlined above by analysing the growth and structure of industry in various blocks of Hadautiin a comparative framework. Attempts have been made to assess the contribution of industry to intra-block fluctuations in economic growth. It also analyses the differences in industrial structure, the scope of industrialization, and the factors that cause structural changes. Intra-block fluctuations in productivity levels and capital intensity can also be examined. In general, this study aims to answer the following questions:

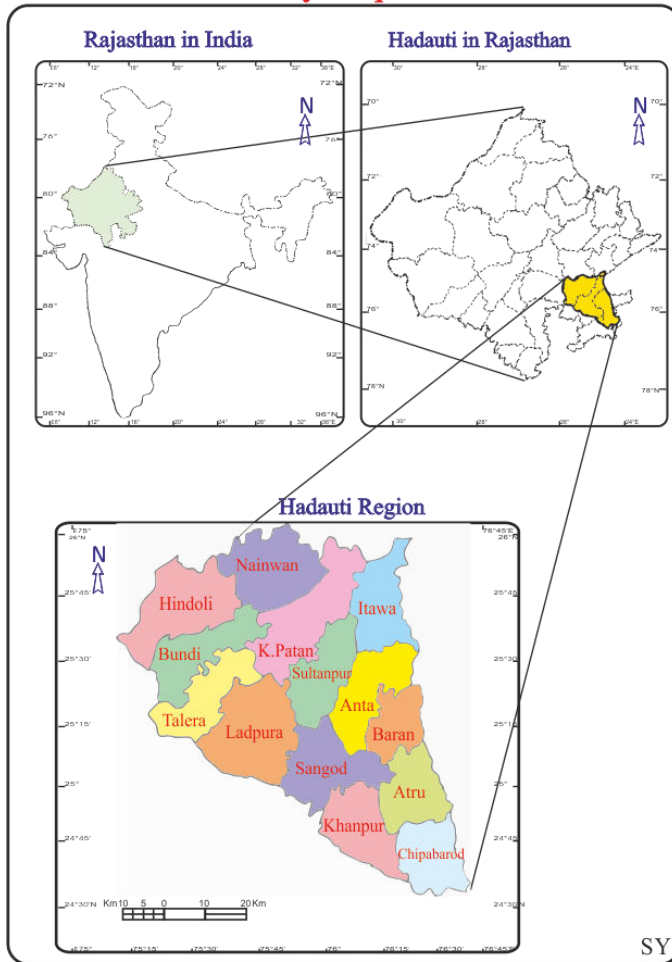
- i) How strong is the connection between the degree of industrialisation and generally financial advancement across the blocks of Hadauti? Does this relationship hold cross-sectionally and transiently?
- ii) How is industry scattered across blocks? What changes have occurred in the portion of various block over the years?
- iii) What has been the presentation of various blocks in the development of industry? How have the paces of modern development fluctuated across blocks in connection with the underlying degrees of industrialisation? Have the mechanically better evolved blocks experienced quicker modern development?
- iv) How have economic reforms affected the relative industrial performance of different blocks?

IV. METHODOLOGY

All the 14 blocks included in the study area have been analysed as a unit of research. The data is collected both from primary and secondary sources. The publications of various departments of Rajasthan have been studied to extract data as per our requirements. All the data was suitably converted into tables drawn for analysis of the industrial development of the study area. The Kendall's ranking co-efficient index method (1939) is used to determine the level of industrial development in the study area. The progressions made by Kendall's Co-efficient index method have been charted based on the four factors which have been considered for the development of industry in Hadauti region. In this study area, the level of industrial development is also dependent on four factors. To find out the level, there are basically three main types: high level, low level, and moderate level.



Key Map



Map 1

Kendall's Co-efficient Index = $\Sigma R / N$

Where,

ΣR = Sum of rank

N= Numbers of variable

V. STUDY AREA

Study area is located in the south-eastern part of Hadauti Plateau in Rajasthan, between 24°25' to 25°51' Northlatitudes and 75°15' to 76°45' East longitudes. The total geographical area of this state is 14481.6 square kilometer. The east to west length of the region is 155 km and north to south length is 180 km. This region includes the entire Bundi district, the entire Kota district except Ramganj Mandi tehsil, the entire Baran district except Chhabra, Kishanganj and Shahbad tehsils and Khanpur tehsil of Jhalawar district. There are 15 tehsils in this region, in which there are 2278 inhabited villages and 19 towns, the main ever flowing river of this region is Chambal, whose tributaries are Kali Sindh, Parvan, Parvati and Mej. The climate here is semi-arid and sub-arid. Agriculture is the main occupation of the population here. Hadauti Region is an important industrial and agrarian region in the State of Rajasthan.

VI. RESULTS

In this study the industrial development depends upon four factors. These variables are shown in table 1.

Table 1: Spatial distribution of Industrial Development

Blocks	No. of factories per 100 sq.kms.	No. of factories per lakh population	No. of employees per factory	% of Employees to total population
Bundi	2.71	10.37	54.04	0.06
Hindoli	0.07	0.45	85	0.01
Nainwan	0.08	0.51	35	0.01
K.Patan	0.07	0.36	572	0.02
Talera	0.11	0.62	138	0.01
Khanpur	0.11	0.58	26	0.01
Itawa	0	0	0	0
Sultanpur	0.12	0.59	917	0.06
Ladpura	45.64	62.51	6.31	0.04
Sangod	0.57	3.22	126.67	0.04
Baran	2.06	6.08	45.85	0.03
Anta	0.1	0.44	190	0.01
Atru	0.12	0.67	1274	0.09
Chipabarod	0.12	0.59	110	0.01

Source: Compiled by the author

Extent of Industrialisation

The difference in the degree of industrialization is one of the most obvious aspects of the difference in the level and structure of the state economy. Two questions are very interesting when it comes to the relationship between growth and structural change. First: Did growth and structural changes (transition from agriculture to non-agriculture) happen together? Second, what structural changes, characterized by a shift to manufacturing and services, have further boosted growth?

Table 2: Ranking Coefficient Index

Blocks	X ₁	X ₂	X ₃	X ₄	Rank Total	Co-efficient Index
Bundi	2	2	9	2.5	15.5	1.107
Hindoli	12.5	11	8	10.5	42	3
Nainwan	11	10	11	10.5	42.5	3.036
K.Patan	12.5	13	3	7	35.5	2.536
Talera	8.5	6	5	10.5	30	2.143
Khanpur	8.5	9	12	10.5	40	2.857
Itawa	14	14	14	14	56	4
Sultanpur	6	7.5	2	2.5	18	1.286
Ladpura	1	1	13	4.5	19.5	1.393



Sangod	4	4	6	4.5	18.5	1.321
Baran	3	3	10	6	22	1.571
Anta	10	12	4	10.5	36.5	2.607
Atru	6	5	1	1	13	0.929
Chipabarod	6	7.5	7	10.5	31	2.214

Source: Compiled by the author

The four variables from the calculated level of industrial development have been considered for measuring. Using the data above 4 indicators, the co-efficient index is calculated for each block which are shown in the table no. 2. Based on its evaluation, the industrial development has been classified into three categories: high, medium, low. Table no.3 and map no.2 indicate the classes of industrial development in each block of the study area.

Table 2: Type of Industrial Development

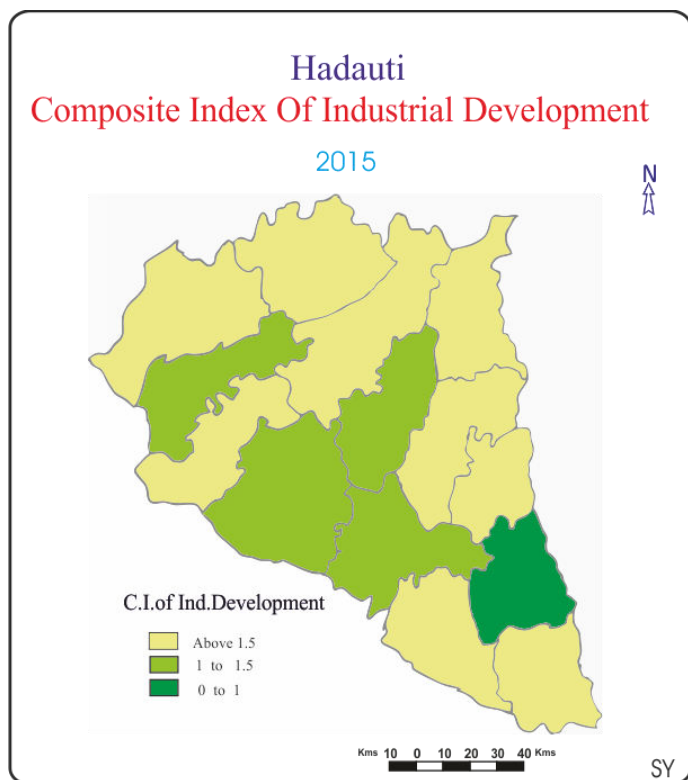
Co-efficient Index	Level	Name of Tehsils	Number of Blocks
0 - 1	High	Atru	01
1 - 1.5	Medium	Bundi, Sultanpur, Ladpura, Sangod	04
Above 1.5	Low	K.Patan, Talera, Khanpur, Baran, Anta, Chipabarod, Hindoli, Nainwan, Itawa	09

Source: Compiled by the author

1.High Level Development: Only one of the blocks come under this category in Hadauti region. Atru block of Baran district falls under this category mainly because employees per factory is highest in this block, though industries in this block are limited. There is a power plant, led factory and footwear industry in Atru.

2. Medium Level Development: Four blocks Bundi, Ladpura, Sultanpura and Sangod are included in this group. All but Sangod block have more industries than Atru but the population of these blocks is comparatively much more than that of Atru, so their index has increased. The blocks have prominently agro-based industries except Ladpura which is a site of chemical and stone industry as well.

3.Low Level Development: Most blocks of Hadauti region come under the category of low industrialisation. Of the nine blocks coming in this category Itawa, Hindoli and Nainwan are least industrialised. There is no industry in Itawa block of Hadauti. Itawa block is agriculturally sound but the other two are characterised by adverse conditions like hilly, poor soil and low income of farmers which has affected the agriculture as well. Hindoli and Nainwan are socio economically backward blocks of the Hadauti region.





VII. CONCLUSION

The area is characterised by the dominance of paddy, wheat, pulses, and oilseeds. The area has predominantly industries based on these agro resources, still there is enough scope for product processing industries in the region. It is also possible that many other constraints on the fronts of finance, technology, entrepreneurship etc., have their bearing on this scenario.

Important mineral resources of the region are limestone, sandstone, Kota stone, and silica sand. Nonetheless, it is believed that some industrial units involved in mineral production are experiencing a variety of technical and non-technical issues that must be addressed to assure the safe and optimal development of these resources. In this context, the issues faced by cement manufacturing facilities in the small-scale industry in the region should be highlighted.

It is obvious that infrastructure plays a major role in industrial development of a region. There are many infrastructure elements, including physical, economic, and social elements (road length and railroad length per geographical unit, energy consumption, educational institutions, hospitals, banking institutions, post offices, telecommunications, etc.). Some backward blocks of Hadauti region are devoid of railway network which helps in boosting industrial growth. Road network has improved over the years, but it will take time to reflect in the industrial development. Various concessions and incentives offered to industrialists with a view to establish industrial units have failed in the absence of substantive pre-requisites being fulfilled. Some of the features of the state such as entry tax on specified items, higher rates of vat, power cuts are found to be exerting negative influence on the industrial development of the region.

The fact that so far, the Hadauti region has lagged in industrial development is no reason why it should continue to remain so, as the New Delhi-Mumbai double railway track passes through the region and there is enough availability of water and power sources in the region. Improvements in the infrastructural facilities coupled with technology, finance, technical training etc., would ensure speedy industrial activity in Hadauti region. The region's pace of industrial development may be accelerated if increased focus is provided to industrial process as such rather than merely attracting few industries. Once an advantageous condition for growth of industry is ensured in a region, industrialisation tends to feed on itself.

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