

The Nature of Cluster Developments in India

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Abstract

Industrial clusters are groups of similar and related firms located in a particular geographical area. Clusters can perform more efficiently by making use of the facilities such as access to better raw materials, technology, information, innovation and market. Clustered firms can improve by coordinating related units and evaluating their performance against other firms. Formation of cluster is natural or induced.

The process of clustering of industries, firms and economic activities are happening everywhere in the world only the nature, size, scope and time have been different. The practice of clustering envisages coming together and gaining some sort of economies of scale as well as accomplishment of competitive advantage. It is also considered as the way to industrialization. Clustering is really advantageous to small and marginal firms in their initial stages to attain economies of scale and the competitive advantage. When they become large then the cluster concept may not be much significant.

Introduction

The cluster concept has fascinated many economists, academicians, researchers and policy makers as a tool for regional development and competitiveness. The objectives of cluster implementation vary between country to country and region to region.

For developed countries it is for capturing international market and enhancement of competitiveness etc. however, for developing countries clustering is meant for development of rural small, medium and households industries and community development. For supporting and developing clusters, policies should be adopted both at the national and regional level.

As a part of policy making, Government of India instituted an Abid Hussain Committee on small enterprises in 1996. This expert committee recommended cluster development policies for the

survival and growth of small enterprises. Before the introduction of this expert committee some other cluster development programmes had been initiated in India like State

Bank of India's a technology up-gradation programme for target clusters in 1989. Again in 1992 SIDBI (Small Industries Development Bank of India) had taken technology focused cluster development programme.

During late 80s to late 90s, cluster development programmes in India were focused on some specific areas like technology/quality improvement, often termed as technology up-gradation (UPTECH) programmes and was led by financial institutions like SIDBI, State Bank of India and the various government departments.

In addition to earlier cluster policies, central government of India with the support of UNIDO adopted the cluster development scheme in the year 1997 as a pilot project for the development of rural household industries. UNIDO not only introduced and executed cluster development programmes but also developed and popularised a methodology for undertaking cluster development programmes. However, it was only in 2002-03 that cluster development programmes (CDPs) particularly in traditional manufacturing industries attained a visible momentum at nation level with lead taken by the Ministry of MSME and the introduction of the Small Industries Cluster Development Programme (SICDP) scheme. The Scheme was later renamed as Micro and Small Enterprise Cluster Development Programme (MSECDP) in the year 2006. As mentioned above, this was soon followed by a scheme called SFURTI and moreover, various other government organisations like SIDBI (Small Industries Development Bank of India), NABARD (National Agricultural Bank for Rural Development) and various international organizations like GIZ, ILO and DFID have taken initiatives for cluster developments.

Objectives of the Study

- 1) To overview the background of industrial clustering in India
- 2) To understand the status of industrial clusters in India

The various ministries of the Government of India and State Governments of Gujarat, Madhya Pradesh, Andhra Pradesh, Kerala etc. were introduced cluster developments in their

Industrial Policy as a means to sustain, expand and enhance productivity of SMEs and make them globally competitive. The cluster development is one of the centre themes of the Ministry of Micro Small & Medium Enterprises for the 11th five-year plan. Around thirty schemes and programme for cluster development were launched by various institutions like central government, state governments, financial institutions, business organisations and international organisations. Which are given below.

Table 1. Schemes and Programmes for Cluster Development in India

Sl. No	Name of the scheme/programme	Name of the institution	Major focus of the scheme/programme
Schemes			
1	Micro and Small Enterprise Cluster Development Programme (MSECDP)	Development Commissioner (MSME), Ministry of MSME	Productivity and Competitiveness, infrastructure
2	National Manufacturing Competitiveness Programme	Development Commissioner (MSME), Ministry of MSME	Energy, ICT, IPR, Design, Lean Manufacturing, Quality, Market, Technology, etc.
3	Scheme of Fund for Regeneration of Traditional Industries (SFURTI)	Khadi and Village Industries Commission and Coir Board, Ministry of MSME	Productivity and competitiveness, Infrastructure
4	Scheme for Integrated Textile Parks (SITP)	Ministry of Textiles	Infrastructure
5	Baba Saheb Ambedkar Hastshilp Vikas Yojna (AHVY)	Development Commissioner (Handicrafts), Ministry of Textiles	Development of Handicrafts clusters
6	Integrated Handloom Cluster Development Scheme (IHCDS)	Development Commissioner (Handlooms), Ministry of Textiles	Development of Handloom clusters
7	Industrial Infrastructure Up gradation Scheme (IIUS) Now Modified IIUS	Department of Industrial Policy and Promotion, Government of India	Infrastructure
8	Mega Food Park Scheme	Ministry of Food Processing Industries	Infrastructure, Technology, Quality
9	Common Facilities for Ayurveda Clusters	Department of Ayush, Ministry of Health and Family Welfare	Infrastructure
10	Margin Money Scheme for Cluster Development Activities	Department of Industries, Government of Kerala	Productivity and Competitiveness

11	Grant Assistant to Cluster Development Activities	Industries Department, Government of Kerala	Training/Skill
12	Scheme for Assistance to Cluster Development	Office of Industries Commissioner, Government of Gujarat	Competitiveness
13	Integrated Cluster Development Programme	Rural Industries Department, Government of Madhya Pradesh	Competitiveness
14	NMDFC Micro Financing Scheme	National Minorities Development & Finance Corporation (NMDFC)	Employment
Programmes			
1	Umbrella Programme for MSMEs	BMZ, GIZ, DCMSME, SIDBI	Employment, Sustainable development
2	Promoting Innovation in Clusters	DST	Innovation
3	Promoting Innovation in Clusters	National Innovation Council	Innovation
4	SBI Project UPTECH	State Bank of India	Technology
5	National Small Industries Corporation (NSIC)	National Small Industries Corporation	Machinery and Equipment
6	National Programme for capacity building of textiles SMEs through cluster based approach	Textiles Committee, Ministry of Textiles	Capacity Building
7	NABARD Cluster Development Programme	National Bank for Agriculture and Rural Development	Competitiveness
8	NMCC-Project Vikas along with Microsoft	National Manufacturing Competitive Council	Competitiveness
9	Technology Upgradation Programme (TUP)	SIDBI	Technology and Finance
10	Cluster Development Programme	UNIDO	Productivity, Competiveness, Poverty Alleviation, Responsible Production
11	Small and Medium Enterprise Financing Development Project	SIDBI-DFID	BDS and BDSPs, Financing, Energy Savings
12	IICA GIZ programme for CSR	GIZ-FMC	Business responsibility

13	Promoting Sustainable Development	EU-FMC, EU-TERI	Business responsibility
14	Scheme for promotion of Energy Efficiency in MSMEs	Bureau of Energy Efficiency	Energy Savings
15	Boosting employment through Small Industries Development (ILO)	Industrial Labour Organisation	Health & Hygiene, Working Condition

Sources: Ministries/Institutions concerned as mentioned above and FMC 2007

Nature of Industrial Clusters in India

It is estimated that there are around 6400 clusters in India. These have been categorized as industrial, handloom, and handicraft clusters. A total number of 4259 clusters have been mapped. These clusters are spread all over India. These 4259 clusters have been in the following typology:

(i)	SME clusters	-	1086
(ii)	Handloom clusters	-	491
(iii)	Handicraft clusters	-	2682
	Total	-	4259

The State of Uttar Pradesh has the largest number of (504) clusters of all types followed by (340) clusters in Orissa and (322) in West Bengal. It is observed that clusters are more concentrated in the states of Uttar Pradesh, Orissa, West Bengal, Gujarat, Maharashtra, Andhra Pradesh and Madhya Pradesh accounts for 54% of all types of clusters in India. With regard to zonal spread of clusters, it is observed that East Zone accounts for 1298 (31%), West Zone 1117(26%) South Zone 907 (21%) and North Zone 937 (22%).

In India, SSI clusters are estimated to have a remarkably high share in employment creation. Some Indian SSE clusters are huge that they account for 90 % of India's total production output of certain products. For instance, the Knitwear clusters of Ludhiana. Gems and Jewellery clusters of Surat and Mumbai. Likewise, the clusters of Chennai, Agra and Kolkata are famous for leather and leather products. However, the majority of Indian clusters, particularly in the handicrafts sector are very tiny with not more than hundred workers, even then the skills and the eminence of their products have worldwide acceptance. For example, Paithani sarees cluster in Maharashtra, Kashmiri shawls etc.

As a result of liberalization and globalization, the daunting challenges created in the small scale enterprise sector have generated a great deal of attention within India on novel ideas. Consequently, both public and private sector institutions at the central as well as the state levels are increasingly undertaking cluster development initiatives.

Industrial Clustering and Economic Development

Cluster analysis make a diagnosis of region's economic strengths and weaknesses and find pragmatic ways to shape the region's economic future. So far many policymakers and practitioners have only a narrow understanding of what clusters are and how to frame economic development plan around them. Even then it is realised that cluster strategy can play a significant role in economic development. Clusters are the major organizational unit for understanding and improving the functions of regional economies. The base of a regional economy is a group of clusters, not a collection of unconnected firms. Firms/industries cluster in a locality because each firm/industry benefits from being located near similar or related firms. The firms in a cluster have common challenges and opportunities.

Clustering proved that it is better to work with similar firms than working isolated. It orients the economic development policy makers and practioners to formulate polices for clustered firms rather than isolated firms. Cluster force them to build polices based on regional requirements and strength of the regions because each region is unique and have different challenges and opportunities. Interaction with cluster members are essential and will helps to conduct research on relevant matters.

Clusters differ from industry to industry and from region to region and work in many different dimensions. Diverse clusters have diverse needs. There is no definite set of policies that will make all clusters victorious. So it must have to develop different strategies for different clusters. It is not easy for public policy to create new clusters purposely instead; policymakers and practitioners should support and retain the economic conditions that facilitate new clusters to emerge. Such an environment might support knowledge creation, entrepreneurship, new firm formation, infrastructural facilities and the availability of capital.

Cluster policy is not about "picking winners" or excluding industries. Clustering is a strategy to enhance overall business environment conditions, establishment of related industries, supporting services, updating skills, easy access to finance and infrastructure, reforming

government rules and regulations, considering local demand, and being open to foreign investment and competition. Hence it is undoubtedly claim that cluster creates value chain. Clusters consist of both high and low-value added employment.

Industrial clusters have become a key factor for regional economic development as clusters have strengthen competitiveness by rising productivity, motivating innovative new partnerships, even among competitors and providing opportunities for entrepreneurial development.

Major Industrial Cluster Regions of India

Ahmadabad Vadodara Industrial Region: This region is an important industrial hub of India and has a well-developed petro-chemical, textiles, jewellery, pharmaceuticals, drugs, diamond cutting, leather, and glassware, plastics, chemicals, fertilizers and engineering goods industries. Ahmadabad is called as the Manchester of India on the basis of having large concentration of textile manufacturing units.

Mumbai Pune Industrial Region: The major industries flourishing in this industrial region are textiles, plastics, ships, automobiles, chemicals, machine parts, cinematography, leather goods, pharmaceuticals, engineering goods, petrochemicals, electronics, armament, soap and detergents, toys, etc. Mumbai is well known as cotton polis of India.

The Hoogly Industrial Region: The most important industrial region of India is the state of West Bengal. This state is famous for the concentration of a large number of industries like jute, silk, cotton textiles, leather goods, paper, electrical, engineering goods, match woodwork, printing machines, sewing machines, automobiles, ship and boat construction etc.

Bangalore-Coimbatore: This region is surrounded by the states of Karnataka and Tamil Nadu and is famous for manufacturing of cotton, silk textiles, watches, sugar refining, leather goods, auto and aircraft parts, electronics, telecommunication equipment, electrical, engineering goods etc. The coffee city of India has large concentration of wide variety of manufacturing including those of high-tech industries like computers, telephones and other communication equipments, aircraft manufacturing, (HAL), Electronics, machine tools (HMT) etc

Chota Nagpur Plateau Industrial Region: This region is endowed with different minerals and sources of power. The region holds the parts of Jharkhand, Orissa and West Bengal. The

availability of coal in the Damodar valley and iron ore in the Jharkhand has attributed to the growth of iron and steel and other allied industries in the region.

Delhi and Adjoining Industrial Region: The industries concentrated in this region are textiles, chemical, petro chemicals, cycles, tractors, engineering goods, electronic, electric equipment, sugar refining, flour milling, paper manufacturing auto mobiles, oil refining, sports goods etc. Gurgaon has gained special importance for development of automobiles and electronics. The main industrial centres are. Faridabad, Ghaziabad, Gurgaon, Panipat, Sonapat, Ballabhgarh, Rohtak, Modinagar, Saharanpur. Meerut, Yamunanagar etc.

Minor Industrial Regions are:

Chennai: is famous for cotton textile, rail coaches, rubber tyres and tubes, automobiles, electronics, oil refineries etc.

Godavri Krishna Delta: This region is known for agro based industries like textiles, tobacco, sugar, vegetable oil, flour milling etc.

Assam Valley: Tea processing, rice shelling, textiles, oil refining, consumer goods etc.

Kanpur: Sugar, leather goods, textiles, aircraft parts etc.

Indore Ujjain: Cotton textiles, scooters, engineering goods, consumer goods etc.

Nagpur Wardha: Textiles, engineering goods, glass, clay industries etc.

Kohlapur Sangli: Cotton textiles, leather goods etc.

Sholapur: Engineering goods, cotton textiles, leather goods.

Northern Bihar and Eastern UP: Sugar refining.

Belgaun Dharwar: Textiles, rail equipment.

Kollam: Southern part of Kerala, cashew processing, coir, coconut oil, handicrafts etc.

Industrial Districts:

Besides, major and minor industrial regions, there are a number of industrial districts, they are Jammu, Amritsar, Ludhiana, Agra, Raipur, Cuttack, Jabalpure, Gwalior, North Arcot, Tirunelveli, and Ramnathpuram.

Many industrial zones across the country embrace the participatory approach by joining together to harvest the enormous advantages of clustering. The cluster formation can possibly be natural and artificial. The former is determined by huge demand conditions or geographical peculiarities while the latter is driven by favourable ecosystem, better infrastructure and conducive government policies or by a public sector initiative.

There are many thriving natural clusters across the country. Panipat is famous for blankets, Tirupur for cotton hosiery export and Agra for shoes. Likewise, Ludhiana has become the centre for manufacture of woollen knitwear, sewing machines, bicycles and bicycle parts in India. In contrast, the auto component industry at Gurgaon, petrochemical-based cluster at Vadodara, gems and jewellery exports come from Surat (Gujarat) and Mumbai (Maharashtra) similarly Chennai, Agra and Kolkata are hubs for leather and leather-based products etc are the example of induced cluster.

Earlier firms in MSME sector were experiencing difficulties in attaining economies of scale, division of labour and innovation because of their small size and are now progressively benefitting from the emergence of industrial clusters. The networking strategy has helped MSMEs to triumph over the barriers such as capital shortage, raw material problems, technological obsolescence, international competition and investment shortages. Furthermore, several central government initiatives such as provision of technical aid, grant for technology up gradation, marketing assistance and various cluster development programmes provided competitive edge to micro, small and medium units in the global ecosystem. State governments of Kerala, Andhra Pradesh, Madhya Pradesh, Gujarat, and Tamil Nadu have also undertaken cluster development activities. All these steps will definitely help industrial clusters in India to enhance their efficiency, productivity and competency.

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