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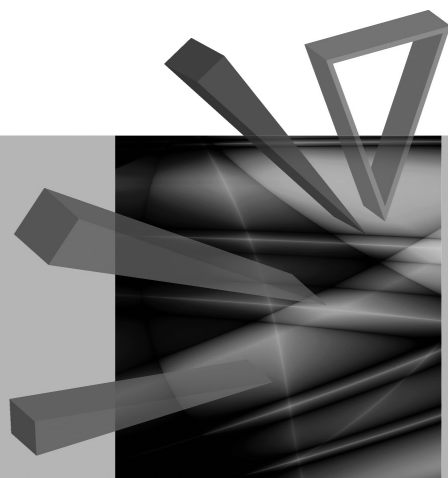
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Clusters, Networks and Markets in the Asia-Pacific Region



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MICRO, SMALL AND MEDIUM ENTERPRISES CLUSTERS AND THE REGIONAL DEVELOPMENT – CASE OF INDIA*

Abstract: Micro, small and medium enterprises (SME)¹ sector has a strong influence on Indian economy and regional development. There are a lot of reasons of this situation in India. One of the reasons is that SME sector has an epochal role in Indian GDP, Indian production on domestic market and in the share of export as well. The role is clearly visible in the scale of employment – SME sector is the biggest employment generator. To have a stronger effect on regional economy, SME companies are looking for new forms of cooperation and that is why there are so many clusters in India. The aim of this paper is to present SME clusters in India, to show their influence on regional development and to describe challenges faced by this specific sector in India.

Keywords: clusters, regional development, India.

1. Introduction

The first cluster occurred in the global economy many years ago. Since then entrepreneurs perceive more benefits than risks from activities in such a group of companies. Positive aspects of the business associations in the clusters are perceived in almost every section of the company starting from R&D, marketing, sales, production, personnel and supplies. Clusters, in addition to the impact of its affiliated company, affect the region in which they operate as well.

A significant part of the cluster definition emphasizes the aspect of competitiveness of the cluster companies. According to the Cluster Linked over Europe (CLOE) “Clusters are groups of interrelated industries, SMEs and organizations whose links with each other improve their overall competitiveness. They can be each other’s customers, suppliers, researchers, partners or competitors. They are clustered in

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¹ According to the World Bank definition, micro enterprise has less than 10 employees, small has less than 50 employees and medium company has less than 300 employees.

certain geographical regions. The most prominent industry clusters in Europe are in the automotive, wood, nanotechnology, plastic, ICT, food and energy industries. Cluster initiatives are organized regional sectoral networks among different economic partners aiming to improve innovation performance and international competitiveness.² According to the definition created by Ch. Pitelis, R. Sugden and J.R. Wilson clusters are “agglomerations of firms in a particular activity, usually with the geographical dimension, with horizontal and (preferably also) vertical intra- and (preferably) inter-sectoral linkages in the context of a facilitatory social-institutional settings, which co-operate and compete (co-opete) in (inter)national markets.”³

Many regions of the individual countries incorporate cluster strategies into their own regional strategy for economic development. According to the definition created by L.W. Munnich Jr. “Cluster strategy is first and foremost an economic development strategy. It provides a coordinated and efficient way to promote economic growth. By making a cluster approach a key part of a state economic development strategy, state agencies are more likely to coordinate their efforts, avoid duplication of services, and develop a more comprehensive approach to economic development.”⁴

2. Cluster and SME sector – theoretical approach

The dominant players in the global economy are, without any doubts, transnational corporations. By activity in many markets and by their economic power, transnational corporations may affect the global economy. On the other hand, micro, small and medium enterprises have a strong influence on local market and repeatedly those players may create and change the economic situation on developing markets, like India. SME can play a key role in the economic growth as well as in the development in many countries.

However, this role of SME’s is often not fulfilled related to several reasons:

- SME, acting individually, may be unable to capture market opportunities which require a large supply and production quantities, homogeneous standards, etc.
- SME can have a problem in access to raw materials, finance support, special services, educated labour,
- SME cannot be so innovated as a big company, because of, for example, the smaller scale of R&D expenses,
- scale of company (small or medium) can be a barrier in improvements in productive capabilities,
- small or medium scale of “economic thinking” may be a huge obstruction on the way of capture new products, new markets, new opportunities.

² *What Is a Cluster?*, Regional Stakeholders, Cluster Linked over Europe, www.clusterforum.org.

³ Ch. Pitelis, R. Sugden, J.R. Wilson, *Cluster and Globalisation. The Development of Urban and Regional Economies*, Edward Edgar, Northampton 2006, p. 20.

⁴ L.W. Munnich Jr. (Ed.), *Industry Clusters: An Economic Development Strategy for Minnesota. Preliminary Report*, University of Minnesota Extension Service, January 1999, p. 10.

One of the methods against the existence of these barriers is joining forces and creating clusters, understood as a cooperation and competition in the one group of entities.

Clusters can have a positive effect on the company's process of development and competitiveness so it is natural action for a company to form cluster and to cooperate with other firms. Based on this benefit, many clusters were created in different countries all over the world. Localization can have a strong influence on the shape and life of the cluster, however, there is an opposite interaction – cluster can have a tremendous effect on regional economy as well. First of all clusters strengthen regional identity and become an investment encouragement for prospective investors, thus contribute to the regional development.

The following advantages can be seen for regional economy and development – cluster can:

- build a specialized market of production factors, among which essential are knowledge and high-quality human capital,
- develop scientific infrastructure and greater use of science by businesses,
- stimulate the flow of knowledge, generate new innovations, thanks to the spatial proximity of actors and the interaction between them,
- create a culture of innovation and the development of entrepreneurship in the region,
- develop the large-scale production network consisting of specialized suppliers and subcontractors,
- create the new regional entities,
- integrate small and medium-sized enterprises into the local cluster structure, which indicate higher specialization and effectiveness,
- create an attractive labour market, attracting skilled workers,
- develop the attractiveness of the location for foreign direct investment.⁵

It can therefore be concluded that the existence of clusters can bring a lot of benefits for associated companies. First of all, the mutual cooperation enables a flow of knowledge, technology and information. Presence of companies from the same industry stimulates innovativeness. Clusters create economic development, stimulate local entrepreneurship and have a positive influence on the employment in the region.

3. SME clusters in India

According to the definition formulated by the Indian Cluster Observatory, cluster is “a concentration of enterprises producing same or similar products or strategic services and is situated within a contiguous geographical area spanning over a few

⁵ *Kierunki rozwoju klastrów w Polsce. Polityka rozwoju klastrów – kształtowanie polityki klastrowej w Polsce*, Ministerstwo Gospodarki, Departament Rozwoju Gospodarki, http://www.mg.gov.pl/files/upload/11783/KLASTRY_PL_press.pdf, p. 6.

villages, a town or a city and its surrounding areas in a district and face common opportunities and threats.”⁶ This is extremely narrow understanding of clusters because it emphasizes only production and geographical concentration. Similar understanding of the cluster can be seen in many governmental organizations and authorities in India. It can be assumed that the geographical concentration of unified industry is a base for the cluster definition adopted in India. It should be noted that understanding of cluster is different in different countries and economies. Contrary to Indian definition is a Japanese way of thinking about the cluster. In Japan it is not about the industry and companies but the attention is focused on innovativeness. Cluster is a source of innovations, that is why the main actors in cluster are not companies (like in India) but research and development centres cooperating with industry and companies. The main task for a cluster is to create new ideas and new products. Just as in theory, in practice there are also many different interpretations of clusters. The basis of differentiation are, undoubtedly, the market conditions of individual countries.

According to Indian sources, there are two basic categories of a cluster:

- industrial cluster: having at least 100 enterprises and/or a minimum turnover of Rs 100 million; units in these clusters are functioning from factory premises with hired workers; such clusters have a mix of micro, small, medium, few large and at times all micro units;
- micro-enterprise clusters: such clusters are all micro units and are mostly made from household-based units by mostly utilizing home-based workers; these include artisanal (handicrafts and handloom) and other micro enterprise clusters; a handloom cluster has a minimum of about 500 looms and that of handicrafts and other microenterprise clusters is estimated to have around 50 units.⁷

According to the Ministry of Micro, Small & Medium Enterprises, Government of India, the essential characteristics of enterprises in a cluster are:

- similarity or complementarity in the methods of production, quality control and testing, energy consumption, pollution control, etc.;
- similar level of technology and marketing strategies/practices;
- channels for communication among the members of the cluster;
- common challenges and opportunities.⁸

Industrial clusters can have a bigger influence on the local market, economy and local growth but in India SMEs form the bedrock of India’s economy.

With the growth of the Indian economy the development of SME companies can be seen very clearly and it is these companies that are the lifeblood of India. They are steadily increasing their share in the GDP and in the employment rate. The existence of many small and medium-sized enterprises naturally favours the formation of

⁶ <http://clusterobservatory.in/clustermap.php>.

⁷ <http://clusterobservatory.in/clustermap.php>.

⁸ *Micro & Small Enterprises Cluster Development Programme*, Ministry of Micro, Small & Medium Enterprises, Government of India, <http://www.msmedildh.gov.in/cdp.pdf>.

clusters, in which there is the absence of one parent company dictating terms to other. According to the data from the year 2012, in India there were 29.8 million micro, small and medium enterprises, employing 69 million people. Comparing the number of SME companies in 2009–2010 and in 2006–2007, a marked increase in the number of these companies by 14%⁹ can be noted, which shows how rapidly this sector is developing in Indian economy nowadays.

Small and medium enterprises have been forming clusters for many reasons, among which the first is to include a cut in operating costs, through the establishment of networks and relationships with other entities. These benefits can be seen in almost every stage of companies business – from the joint purchase by splitting the cost up to exchange market information and technology. This interaction in the cluster and networks has helped to improve the competitiveness of SME, which results in the growing importance on the domestic market in India as well as, what is even more important, in export. Benefits, which carries a cluster, led more and more SMEs to a close connection with some sort of cluster or cluster initiative, or are active members of existing cluster. Table 1 presents a list of SME's clusters in India, divided into number of clusters in particular region, top section and, what is critical for research, potential for technology upgradation and export potential. In the second part of Table 1, number of working enterprises and employment in clusters are shown.

The data presented in Table 1 indicate that there are 388 SME clusters in India. Most of the clusters are based in Maharashtra State, that is in the central part of the country, and it should be noted that the largest concentration of clusters consisting of small and medium-sized enterprises is precisely in the central and northern parts of the country. Examined clusters operate mainly in Sections 7 and 6, which is base metals, machinery equipment, transport equipment, textile and textile articles. Animal, vegetable, horticulture, forestry products, beverages and tobacco are popular as well. From the regional development point of view, factors that should be considered in the study are certainly technological potential and the ability to export. The vast majority of SME clusters in India have medium potential for the development and improvement of new technologies (267 clusters), but also 111 clusters are characterized by a high technological potential, which gives the impression that technology can be a strength of SME clusters in India. Considering the data on export potential it can be concluded that most of the clusters have high and medium potential (together 315 clusters) compared to only 73 with a low potential.

The impact of SME clusters in regional development is very much evident by the number of workers. There were 2443 clusters in SME sector in India, covering 321 products and had a share of 34.85% in total employment. This cluster had a share of 45.92% in total number of units as well.¹⁰ The largest number of clusters according

⁹ *Micro, Small and Medium Enterprise Finance in India. A Research Study on Needs, Gaps and Way Forward*, International Finance Cooperation, World Bank, Washington, DC, 2012, p. 22.

¹⁰ *Final Report...*, p. 47.

Table 1. SME's clusters in India by region, identified by UNIDO and Ministry of Micro, Small and Medium Enterprises, Government of India

UNIDO 2001									MSME 2007		
State	No. of clusters	Top section	Potential for technology Upgradation			Export potential			No. of clusters	No. of working enterprises (thousands)	Employment (thousands)
			L	M	H	L	M	H			
Andhra Pradesh	32	7; 6; 1		23	9	6	14	12	68	15	97
Bihar	3	7; 1		1	2		2	1	81	16	44
Chhattisgarh	2	7		1	1		2		41	11	17
Gujarat	49	7; 9; 6		31	18	9	21	19	369	129	609
Haryana	24	7; 6; 2	2	10	12	9	10	5	42	8	97
Himachal Pradesh	3	7; 2; 1		3			2	1	18	5	7
Jammu & Kashmir	5	1		5		2	1	2	10	2	4
Jharkhand	3	7		1	2	3			26	5	13
Karnataka	19	6; 7; 1		15	4	5	6	8	227	66	291
Kerala	10	6; 4	1	5	4	1	5	4	255	84	319
Maharashtra	58	1; 7; 1	2	41	15	12	25	21	69	28	292
Madhya Pradesh	10	6; 7		9	1	1	4	5	228	56	86
Orissa	13	1; 6		5	8		11	2	16	2	9
Punjab	30	7; 9	1	11	18	3	10	17	82	17	136
Rajasthan	20	3; 1; 7	1	16	3	1	9	10	77	14	83
Tamil Nadu	28	7; 6; 1		28		6	15	7	350	153	815
Uttar Pradesh	39	7; 9; 6	3	30	6	6	16	17	359	86	248
Uttaranchal	3	7; 9; 1		3		1	1	1	44	10	18
West Bengal	17	7; 6; 5		15	2	4	4	9	47	8	35

Legend: L – low; M – medium; H – high; Section 1 – animal, vegetable, horticulture, forestry products, beverages, tobacco and pan masala, and non- edible water/spirit & alcohol chiefly used in industry; Section 2 – ores, minerals, mineral fuels, lubricants, gas & electricity; section 3 – chemical and allied products; Section 4 – rubber, plastic, leather & products thereof; Section 5 – wood, cork, thermocol & paper, and articles thereof; Section 6 textile and textile articles; Section 7 base metals, products thereof & machinery equipment and parts thereof. excl. transport equipment; Section 8 – railways, airways, ships & road surface transport and related equipment & parts; Section 9 – other manufactured articles and services, n.e.c.

Source: List of SME clusters in India identified by UNIDO, Central Bank of India, http://www.centralbankofindia.co.in/upload/obc/MainMenuEnglishLevel-2_CLUSTER_IDENTIFIED_BY_UNIDO.pdf; *Final Report, Fourth All Indian Census of Micro, Small and Medium Enterprises 2006–2007: Registered Sector*, Ministry of Micro, Small and Medium Enterprises, Government of India, New Delhi 2011, p. 48.

to MSME is in the Gujarat State (369 clusters), where over 120 thousand companies are located, employing over 600 thousand employees. Most SME companies affiliated into clusters in the Tamil Nadu region – 153 thousand companies in 350 clusters, where more than 815 thousand people were employed. This significant role of clusters in the local employment illustrates the importance of SME clusters in regional development. It can be assumed that the existence of these clusters now will spur creation of new enterprises which will become the part of the cluster. According to the cluster's life cycle, the increase in size of cluster's players is being expected, as well as creation of new clusters by detachment from those already existing. It is therefore clear that clusters are the engine of local businesses especially from the SME sector, which is so well developed in India. Clusters are therefore fuel for regional growth and can be an answer to global competition.

4. Challenges for Indian SME Clusters

Nowadays there are a lot of challenges for Indian companies and clusters in the sector of SME. The following challenges should be highlighted:

- new technologies and innovations,
- global competitiveness,
- go global,
- government initiatives to create clusters,
- financial support for clusters.

Technology is an essential tool for the growth. The cooperation in clusters can give a tremendous opportunity for SME companies to share costs connected with the creation of new technology. The emphasis should be placed not only on the new technology of production but on the new technology in management and activity of the company as well. The key factor can be Internet. The access to global web and operating in the virtual world can be critical on the way of rising competitiveness of cluster companies. Go global concept should be implemented not only by export but by new channels of sale, closer relations with international market and global cooperation. SME clusters in India are in desperate need for government support. Government should provide SME friendly policy and should support (also financially) cluster initiative even in the very early stage. It should be mentioned that every cluster is different and has variant needs, so cluster policy should be made and provided by regional authorities. That is essential especially for India, because of the huge disparities in regional development in particular regions.

5. Concluding remarks

SME sector in India is constantly evolving and its role in the Indian economy is critical for the development. Business model in India is based on the countless number of micro and small companies. Many of them are unregistered but every day

they work, produce and sell – on domestic as well as international markets – thousands of products. SME sector offers huge number of jobs, so unemployment is so much lower than it would be without SME companies. It must be remembered that local and global competitiveness is ruthless that is why small and medium firms are looking for strategic partners and co-operators to deal with economic forces and to achieve a higher profit. One of the possibilities is clusters and this form of cooperation is becoming increasingly popular in India and in the world. Clusters activate local companies and incorporate them to regional trade and consequently clusters increase regional's share in the global trade. Clusters can have an influence on innovativeness of small and medium enterprises from local market, which is reflected in the regional competitiveness. Knowledge transfer, which is typical attribute of every cluster, can be a platform of exchanging knowledge in the region. Networks, created with clusters, are critical for local firms. The flow of information is consistent and all entities are engaged in one goal which is development. Cluster is a place for multilateral cooperation between company, local government and research and development units (like universities, special laboratories, knowledge institutions) and can be a business incubator for micro and small enterprises.

SME clusters from India can also be a platform of cooperation in the Asia region. This type of clusters from different Asian countries can work together in production or selling products so they will create a networks' interrelation in the region and in the world as well.

The paper presented the important role of SME sector and SME clusters in the regional development in India. The overall conclusion is that SME clusters are critical for micro, small and medium companies because cluster can be seen as a platform of cooperation between companies and can give a chance to join forces of every and each entities. Numerous micro and small companies, hiring a high percentage of employees, play a significant role in the regional development in India.

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What Is a Cluster?, Regional Stakeholders, Cluster Linked over Europe, www.clusterforum.org.

KLASTRY MIKRO, MAŁYCH I ŚREDNICH PRZEDSIĘBIORSTW A ROZWÓJ REGIONALNY – PRZYPADEK INDII

Streszczenie: Sektor mikro, małych i średnich przedsiębiorstw (MŚP) ma niezwykle silne oddziaływanie na gospodarkę Indii i na rozwój regionalny. Można wskazać wiele przyczyn takiej sytuacji. Jednym z powodów jest epokowa rola firm z sektora MŚP w wytwarzaniu PKB Indii, produkcji krajowej oraz ich udziału w eksporcie na rynki zagraniczne. Rola ta jest szczególnie widoczna w skali zatrudnienia – sektor MŚP to największy generator nowych miejsc pracy. W celu zwiększenia wpływu na regionalną gospodarkę firmy MŚP stale poszukują nowych form kooperacji, co przekłada się na znaczą liczbę klastrów funkcjonujących w Indiach. Celem artykułu jest prezentacja klastrów przedsiębiorstw z sektora MŚP funkcjonujących w Indiach, a także przedstawienie ich oddziaływania na rozwój regionalny i wyzwań stojących przed tym specyficznym sektorem przedsiębiorstw w Indiach.

Słowa kluczowe: klastry, rozwój regionalny, Indie.