Empowering Through Cluster Development

The lion's share of production in most of the developed countries is accounted for by the small and medium enterprises. India is gearing up to raise output from this sector significantly to those levels, says **N N Sachitanand**

WITH a contribution of 40 per cent to the country's industrial output and 35 per cent to direct exports, India's SME (Small and Medium Enterprises) sector is the key driver in the nation's economic growth. In terms of employment, this sector plays a very crucial role, being the second largest employer (some 20 million persons) after agriculture. This is important in a country where a significant portion of the population is below 25 years of age and the annual addition to the labour force is humongous.

One of the peculiar characteristics of this sector is the existence and persistence of clusters. The term 'cluster' indicates a sectoral and geographical concentration of enterprises, which produce and sell a range of related products and are, thus, faced with common challenges and opportunities. These clusters have been in existence for decades and sometimes even centuries.

There are several types of clusters. For example, there are clusters based on a common resource such as the marble cutting and polishing industries around Makrana in Rajasthan based on the marble deposits in that area or the block printing cluster of units in Sanganer near Jaipur, which rely on the peculiar composition of the water in that area or the machine tool industry in Bangalore, which taps the engineering talent pool in the city. Examples of induced clusters would be the auto component industry at Gurgaon, triggered by the setting up of the Maruti Udyog car manufacturing factory there or the petro-chemical based units, which have come up at Vadodra consequent to the establishment of IPCL. Clusters could also develop in the form of similar enterprises, springing up near each other in a "me-too" fashion, such as cotton knitwear units at Tirupur in Tamilnadu.

SMEs operating in such clusters derive a clear competitive advantage from:

- The proximity to sources of raw materials.
- The availability of suitable business development services.
- The abundance of customers/buyers attracted by the cluster tradition in that industry.
- The presence of a skilled labour force.

SME clustering can be observed in a wide range of countries and sectors. In Italy SME clusters that have reached high levels of growth and leadership in profitable niches of world markets (e.g. leather goods, textile, jewellery, ceramic tiles, and spectacle frames). Similar examples exist from other developed countries such as Taiwan, China, Hong Kong, Thailand, Germany, the US and Japan.

India has 388 documented industrial clusters, around 400 handloom clusters, about 3,000 handicraft clusters and 2,800 micro-enterprise clusters that contribute significantly to its economy, and provide employment to more than 20 million people. According to one estimate, clusters account for 77 per cent units, 72 per cent employment, 61 percent investment, 59 per cent output and 76 per cent exports of small scale industries.

Among the larger clusters, it is worth mentioning those of:

- Panipat accounting for 75 per cent of the total blankets produced in the country.
- Tirupur, which is responsible for 80 per cent of the country's cotton hosiery exports.
- Agra with 800 registered and 6,000 unregistered small scale units making about 150,000 pairs of shoes per day with a daily production

ASSEMBLY LINE: Maruti is a prime mover in the auto segment

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value of $1.3 million and exports worth $60 million per year.

- Ludhiana, a city that is well known as the Manchester of India, which alone contributes 95 per cent of the country's woolen knitwear, 85 per cent of the country's sewing machines and 60 per cent of the nation's bicycle and bicycle parts.
- Bangalore, which accounts for over 50 per cent of the output of machine tools in the country.
- Surat, which cuts and polishes three-quarters of the world's diamonds in several hundred "factories" employing over 300,000 cutters.

Although SMEs can play a key role in economic growth as well as equitable development in India, this potential role is often not fulfilled because of a particular set of problems characterising SMEs that are related to its size:

1. Individually, SMEs are often unable to capture market opportunities, which require large production quantities, homogenous standards and regular supply.
2. They experience difficulties in achieving economies of scale in the purchase of inputs (such as equipment, raw materials, finance, consulting services, etc.)
3. Small size constitutes a significant hindrance to the internalisation of functions such as training, market intelligence, logistics and technology innovation - all of which are at the very core of firm dynamism.
4. Small and medium scale prevents the achievement of specialised and effective internal division of labour that fosters cumulative improvements in productive capabilities and innovation.

Because of the continuous and fierce struggle to preserve their narrow profit margins, small-scale entrepreneurs are often locked in their routine work and unable to introduce innovative improvements to their products and processes and cannot look beyond the boundaries of their firms to capture new market opportunities.

To overcome these handicaps associated with small individual size, the Office of the Development Commissioner, Small Scale Industries, Government of India, initiated a development approach that targeted clusters of similar industries. The assumption was that a cluster of units acting in unison would prove much more effective than the efforts of a lone enterprise. This approach would also mitigate the cost burden of development initiatives on individual enterprises as such costs would be shared by the entire cluster.

In December 1995, the Government of India constituted a high profile expert group (the Abid Hussain Expert Committee on Small Enterprises) that, in its final report issued in January 1997, explicitly endorsed cluster support initiatives as also recommended by UNIDO.

At the end of 1996, following a national workshop during which the results of a UNIDO survey of Indian SME clusters were presented, UNIDO was requested by the Ministry of Industry to promote pilot projects in selected clusters (Tirupur: cotton knitwear, Pune: food-processing, Jaipur: textile-printing and Ludhiana: knitwear, jointly selected by the Ministry of Industry and UNIDO), and to help the Ministry formulate a national cluster development programme.

The results obtained from the pilot projects were quite encouraging. For example, the Cluster Development Programme (CDP) started at the Cotton Knitwear cluster in Tirupur (Tamil Nadu) has yielded dramatic results. The

turnover of the cluster, which was about $100 million in 1994, went up to more than $3 billion in 2006 and exports shot up from $40 million to some $2 billion in the same period.

With initial funding provided by the Italian Ministry of Foreign Affairs, UNIDO prepared a comprehensive project aimed at developing sustainable capabilities at both the local and the national levels to promote SSI networking and cluster development. With a contribution from the Swiss Agency for Development and Co-operation, UNIDO support was extended to the clusters of Ambur (Leather), Bangalore (Machine Tools), and Ahmedabad (Pharmaceutical). These clusters are also being supported in close collaboration with government agencies.

The underlying concept of the Cluster Development Programme (CDP) was to adopt the consortium approach to reducing costs and improving top and bottom lines. The term 'consortium' refers to a group of firms that cooperate in ways such as raw material purchase, marketing through common brand, export promotion, common effluent treatment, capacity utilisation, participation in exhibitions and marketing tours etc. Through such a consortium approach, these firms complement each other in order to overcome common problems, achieve collective efficiency and conquer markets beyond their individual reach.

Bearing this out is P.S. Nair, managing director of ETA Technology, a machine tool maker, which is a member of the Bangalore Machine Tools Association, a cluster that was started in 2002. According to him, the 10-member companies of this cluster derive benefits from such initiatives as joint marketing efforts like presentations and mini-exhibitions at potential customer areas, sharing information about raw material and component pricing, maintaining common web site and joint design of brochures and other promotional material, exchanging know-how about problem solving, off-loading manufacturing jobs to each other, etc. The latest successful joint effort is obtaining 30 acres of land for the members in a new industrial estate carved out by the Karnataka Industrial Area Development Board at Dobbspet near Tumkur.

MINUTE EYE: Work that calls for high precision engineering

"Because of these successes," says Nair, "a number of other SMEs catering to the metal working industry now want to become members of our cluster."

TIRUPUR KNITWEAR CLUSTER

About 45 per cent of India's garment exports are in the form of knitwear, and here the Tamil Nadu centre of Tirupur plays a pivotal role, generating as much as 80 per cent of knitted garment exports; in other words, about 4 per cent of India's total export trade. Known as 'T-Shirt City', the industry in this town started with the production of low valued cotton hosiery items, mainly undergarments during the 1930's. Knitting to this city was brought by Gulam Kadar in 1937 who established "Baby Knitting Industries" in Kaderpet area of Tirupur.

The first export of knitted garments was made to US and Ghana by Mohan Knits through a Bombay merchant exporter in 1972. However, it could not be sustained. In 1980s, forced by increased domestic competition, a few units made sustained efforts to export and succeeded. The Tirupur cluster comprises around 5,000 units which are involved in one or the other activities of

textile value chain.

From being the producers of basic knit garments for lower end of the domestic market, Tirupur knitwear cluster has today a diversified production range comprising T-shirts, polo shirts, sportswear, sweat shirts, ladies dresses, children's garment, nightwear, etc.

There are 15 active industry associations, which are playing a commendable role in helping member firms by playing quasi-judiciary role to settle various inter and intra firm disputes, representing members in judicial suits, taking on procedural formalities with the Administration, lobbying with the government, promoting common brands, adaptation to latest technology, inter-firm production sharing etc. These associations have brought into play common facilities and services like effluent treatment plants, Knit Fair Complex, logistics, fashion institute in collaboration with NIFT and the like. Among the important ongoing projects being taken up is an apparel park of 65 units in a 175 acre plot.

AHMEDABAD PHARMA CLUSTER

The evolution of the drugs and pharmaceutical cluster at Ahmedabad started off with the establishment of the first unit – Alembic Chemical Works Ltd. at Vadodara way back in 1907.

A phenomenal growth of small firms took place during the 1970s and 1980s. This phase was further strengthened as a result of growing exports to Russian and African countries. During this growth process, a few first generation entrepreneurs graduated from small to medium/large firms and some later entrants became sizeable medium enterprises. This growth phase in turn saw further entry of new entrepreneurs in the small scale sector.

There are now around 450 drugs and pharmaceutical manufacturing units in Ahmedabad, Vadodara and nearby areas. Seven firms in the clusters are big, around 20-25 medium-sized and the rest are small. The major products manufactured in the cluster include (a) pharmaceuticals—both allopathic and ayurvedic formulation, in different dosage forms (including tablets, liquid, capsules, externals and injectables) and (b) medical disposable products like IV sets. Around 50 manufacturing units produce medical disposables and the rest are in formulations including ayurvedic products.

The consortium initiatives are frequently much more effective and sustainable if they involve the entire range of actors with whom the SMEs commonly interact. Among such actors are :

- Suppliers of raw materials, plant & machinery
- Consumers of goods and services from the SMEs testing laboratories (both private and public)
- Research and development institutions
- Industrial associations
- Technical, marketing and management consultancy organisations
- Training institutions
- Regulatory bodies enforcing/monitoring rules and regulations
- Local government
- Financial institutions

For banks and financial institutions, the cluster approach may be beneficial as

- Separate packages/services can be developed for each cluster
- Products/services so developed can provide better yields
- Authentic statistical/market data for different units under a cluster can be collected, which would help in formalising location–specific Risk Management framework for the industry.

Three diverse models of cluster development focusing on technology, consortia and local private sector led governance have emerged in the country over the last 15 years. The broad steps towards cluster development have centred around six heads, viz, cluster selection, diagnosis, engagement of cluster actors by trust building steps, action plan preparation, implementation and monitoring-cum-evaluation.

Following the UNIDO initiative, several institutions in India, both at the national and state level have taken up cluster development as a means to undertake socio-economic development. These include, besides the Central and State Governments, organisations like National Small Industries Corporation (NSIC), NABARD, CII, SIDBI, Textile Committee – Ministry of Textiles and many others.

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The State Bank Of India (SBI), through its Project Uptech for technology upgradation of SSI units, was one of the first organisations in India to take up CDP as a Credit Plus + strategy in their banking services.

Over a five-year time frame, 20 independent institutions have taken up cluster development across more than 1000 clusters with very wide ranging objectives and methodologies. Among private institutions, the leader in undertaking CDP is the Ahmedabad–based Global Network, an international trade consulting and training firm. It was introduced to the CDP by UNIDO in 2001 and has since then worked in 66 clusters in India. It has now formed a not-for-profit NGO called *Cluster Pulse* to assist SSI clusters access international markets.

The Office of the Development Commissioner, Small Scale Industries, Government of India has recently set up at the Entrepreneurship Development Institute (EDI), Ahmedabad, an International Centre for Cluster Competitiveness and Growth.

Globalisation presents threats and opportunities to Indian industry. The bigger players can afford to put in large resources to counter the former and exploit the latter. SMEs are individually resource constrained to adopt this approach. The CDP is an ideal strategy for SMEs to overcome this handicap and meet the challenges of globalisation.

The stage is, therefore, now fully set for the small to become big and even more beautiful.