

Cluster Development in Small and Medium Enterprises: Key to Success Globally

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Abstract

Small and Medium Size Enterprises have played a pivotal role in boosting the Economic performance of any country. Indian SMEs are serving as backbone for industrial economy. Despite of high growth rates Indian SMEs lack behind globally due to various challenges faced such as lack of Financing, Technological Advancements, Skill Development etc. Cluster Management is one of the strategy which has been world wide accepted in improving the functional performance of SME sector.

Clustering offers immense benefits to SMEs organizations as it improves and strengthens the working efficiency by reducing the financial burden at the same time.

The paper aim's to study the Role of Clustering in SMEs by examining some recent examples of successful Industries operating globally. The paper also explores different ways of Clustering in SMEs as well as the competitive advantages provided by clustering in various sectors to the Indian SMEs so as to improve its performance on global platform.

The results of the study suggest that cluster based approach will not only provide solutions to various problems faced by SMEs but also increase the contributions made by SMEs in the overall economic development of the country.

Keywords:

SME, Cluster Management, Economic Development, Competitive advantage.

Introduction

Small and Medium Enterprises plays the most important and crucial role in the development of economy of any country, this fact has been accepted by developed as well as developing countries of the world. Yet, in most of the developing countries the challenges faced by SMEs are very much common in nature due to the fact that these countries are facing same problems such as uneven income distribution, poverty, less employment opportunities, lack of proper education and many more. Indian market is growing rapidly and Indian entrepreneurs are making remarkable progress in local and global market in various industries like manufacturing, automobiles, precision engineering design, food processing, pharmaceutical, textile, information technology and agro based industries etc. In developing countries like India the manufacturing service and trading functions are largely dominated by SMEs.

SMEs in India

India has the second largest no. of SMEs in the world with an estimated 48 million firms. SMEs with the staff strength of under 10 (Micro) contributes 94.4% of SME sector. India's SME sector has been dominated by manufacturing. There are more SMEs in Urban areas (55%) as compare to rural area (45%). SMEs are more apparent in Food products and beverages sector and in Apparel products. 45% of the manufacturing output comes from SMEs, 40% of country's export has been contributed by SMEs, 40% of country's workforce has been engaged in SMEs, yet despite of all these facts due to poor productivity SMEs contribution in India's GDP is just 17%.

For rapid economic growth, Entrepreneurs need to migrate from small to medium and from medium to large enterprises at a faster rate. The MSME Ministry of Government of India consistently supports SMEs and due to this, the rate of

Industry sickness has come down rapidly. Cluster based operation is the key factor that contributes to the growth of SMEs in the country by providing number of advantages to the firms. MSME suggests that cluster approach should be a key strategy to be adopted by SMEs in order to become globally competitive.

What are clusters?

According to the United Nations Industrial Development Organization (UNIDO), “Clusters are the sectorial and geographical concentration of enterprises; in particular Small and Medium enterprises faced with common opportunities and threat. Clusters can:

1. Give rise to external economies with specialized suppliers of raw materials, components and machinery, and sector specific skills.
2. Favour the emergence of specialized technical, administrative and financial services.
3. Creates a conducive ground for the development of inter firm cooperation and specialization as well as of cooperation among public and private local institutions to promote local production, innovation and collective learning.”

The foundations of this paradigm can be traced back to the work of the economist Alfred Marshall, who in Principles of Economics in 1890 described the phenomenon as “the concentration of specialized industries in particular localities” and noted that these agglomerations of small-scale businesses enjoyed economies of scale comparable to those of large firms.

In Modern times, the Clustering concept was known to be popularized by Dr. Michael Porter of Harvard School Business in 1990. According to porter Clusters are “groups of interconnected firms, suppliers, related industries and specialized institutions in particular fields that are present in particular locations”.

Porter also suggests that firms operating in a cluster will gain competitive advantage over its international rivals by discovering new and better ways of production and marketing. Competitive advantage will also be gained by managing the entire network that involves suppliers of raw materials, intermediate channels and buyers. According to Swann et al Productivity growth is related to innovativeness in activity and output. Baptista also suggests that the “exchange of information within a cluster will attract more human capital to the cluster and technological innovation is the key to cluster growth”. Arthur in 1990 also suggests that clusters with innovation are more strong and independent.

Objective of the study

1. To find out the need of clustering among SMEs.

2. To find out the advantages or benefits avail by SMEs clusters.

3. To study the cases of successful clusters of India and their impact on economy.

Research Methodology

The data has been obtained through Secondary sources by researching in house Journals, previous researches relevant to the topic, reports, Books, Newsletters & Case Studies. Data collected was crosschecked through the official website of the Organizations.

Key Findings

Why Clusters are needed?

One of the Millenniums development goals includes reducing the poverty to half by 2015. Development of Private sector has been identified as an effective strategy to reduce poverty in the nation. A growing private sector “can alleviate poverty by contributing to economic growth, job creation and poor people's incomes. It can also empower poor people by providing a broad range of products and services at lower prices.” With respect to pro-poor growth, UNIDO suggest that a cluster approach can be a valuable tool to tackle poverty and lay the ground for a process of broad-based growth because clusters are also socio-economic systems.

SME's no doubt contributes in employment generation, reducing the poverty and in wider distribution of wealth in any country still the SMEs potential is often underutilized because of the common problems associated with them.

Problems related to individual unit of SMEs include:

1. SMEs are not able to achieve economies of scale in the purchase of raw materials and other necessary equipment and machines.
2. Due to lack of Innovation, most of the SMEs operation are more time consuming and requires more human efforts.
3. Workers in SMEs are underperforming due to lack of training and guidance by experts.
4. Scope of SME is limited thus SMEs are unable to take the advantages associated with new opportunities.

Most of the SMEs are operating in isolation and thus they are facing the above mentioned problems in their day to day functioning. The SMEs which are operating with closer association among them are able to find the solution for most of their problems. The closer link between the SMEs and the associated institutions (both Government as well as private) also solve most of the common problems.

Advantages offered by Clustering

1. Cluster develops competitive advantage for the firms.

SMEs in a cluster are able to achieve the higher level of competitiveness that are beyond the potential reach of individual firms. Porter (1998) suggests that clusters can create competitive advantages for them:

- a. By increasing the productivity of firms involved in clusters.
- b. By introducing innovative ways of production as well as operation.
- c. By expanding the cluster with new firm's involvement.

As per Swann's (1998) positive feedback model:

- a. Firms within clusters grow faster as compare to firms operating outside the cluster.
- b. Clusters attract new firms thus tend to expand faster.
- c. Firms within cluster are more innovative than individual firms outside the cluster.

2. Clusters are better than networks

Clusters are most often confused with Networks but both of them are different in terms of their characteristics.

According to Rosenfeld (2001) these are some common difference between clusters and networks.

1. Networks allow firms access to specialized services at lower costs whereas Clusters attract needed specialized services to a region.
2. Networks have restricted membership whereas Clusters have open membership
3. Networks are based on contractual agreement whereas Clusters are based on social values that foster trust and encourage reciprocity.
4. Networks make it easier for firms to make complex products whereas Clusters generate demand for other firms with a variety of similar and related capacities
5. Networks are based on cooperation while Clusters take both cooperation as well as competition.
6. Networks have common business goals whereas Clusters have collective visions Coordination.
7. Networks can be developed within or independently of clusters, whereas cluster involves networking.

3. Cluster makes the firms achieve economies of scale

SMEs are able to achieve economies of scale by purchasing inputs such as raw materials, financing, consulting services etc. beyond their reach thus able to achieve large scale

orders.

4. Clustering offers high growth rates.

Due to the collaborative efforts of clustered firms and shared economic goals, firms are able to achieve high and sustained growth.

5. Limitations of SMEs can be overcome by clustering.

SMEs are normally small in size; employing limited number of employees, normally a one man show / family business / women handling business, where owners operate the business with fixed mind-set and need of professional approach is missing. These are some of the common SMEs limitations:

- a. Lack of availability of credit.
- b. Low capital base.
- c. Availability of raw material at competitive cost.
- d. Inadequate infrastructure, technology and storage.
- e. Lack of skilled manpower, training.
- f. Less or no exposure to international environment.
- g. Lack of interest in R&D.

6. Cluster promotes self-employment

Due to less complicated procedures of functioning and aid available by Government and other International institutions like UNIDO, Entrepreneurs are more willing to work in a cluster.

7. Cluster overcomes financial constraints

In the initial stage Entrepreneurs finance the cluster but once the cluster starts developing, banks promote their financing and thus help in expanding the cluster.

8 Cluster deepens the division of labour

Clustering decompose the process of production by dividing it into small steps among several firms which require low level of investment.

9 Clusters lowers the production cost and improves the services to customers

SMEs can form a cluster on the basis of:

1. Common area of business.

When entrepreneurs have a common interest in a particular business but due to lack of resources they are not able to run their business profitably.

2. Infrastructure needs.

When firms shares the same need for infrastructure like machinery, equipment, transportation etc. they come

together to form a cluster.

3. Competition.

When firms share the same kind of competition both

domestic as well as international they come together to form a cluster and work in synergy.

Successful cases of SMEs cluster in India

S.No.	Cluster Name	Area of operation	Achievements
1.	Tirpur Cluster, Tamil Nadu	Cotton Hosiery products.	Agglomeration of more than 7,000 SMEs. Exported US\$650 Million worth to EU, Japan and USA. Represents over 80% of all Indian exports of such goods.
2.	Panipat Cluster, Punjab	Blankets	Produces 75% of the country's blankets
3.	Agra Footwear Cluster	Shoes	Agglomeration of 800 registered and 6,000 unregistered enterprises with cumulative capacity of approximately 150,000 pairs of shoes per day. Contributes US \$ 60 million of exports.
4.	Ludhiana Cluster	Multiple products like woolen knitwear, bicycle and bicycle parts, sewing machines.	Produces 95% of the country's woolen knitwear, 69% of the total bicycle and its parts and 85% of the country's sewing machines.
5.	Ahmedabad Pharmaceutical Cluster	Pharmaceutical drugs – tablet, capsule, liquids, ointments, lotions etc.	Commands share of over 40% of Indian drug production and over 17% of total drug exports. Agglomeration of 400 to 500 SMEs, estimated turnover is around Rs. 8000 Crores.
6.	Chennai Leather cluster, Tamil Nadu	Leather items – finished leather and Footwear.	Agglomeration of over 1000 SMEs. Contributes to 42% of India's leather exports which is estimated to be around Rs. 13000 crores . 100% export oriented units.

Many other core industry sectors present numerous opportunities for MSMEs. To help the MSMEs tap these opportunities, the government is looking at ways to facilitate, incentivize and support the technology transfer and provide other supportive measures at individual as well as collective levels. Linkages with Research & Development Institutes, rewarding innovation and new technology, creation of Technology Development Fund, etc. are some of the suggestions being considered at present. Few of the opportunities presented by some of these sectors are discussed below:

Role of Government and UNIDO in Cluster development

1. United Nations Industrial Development Organization (UNIDO) has taken several initiatives to strengthen the

clusters by promoting linkages between SMEs, firms and institutional environment. The projects of UNIDO's on clusters are customized to the requirement of individual countries. Due to aid and guidance provided by UNIDO's broker many Clusters of India are running successfully now. Some of them are Pune Food Processing Cluster, Bagru Cluster near Jaipur, Ludhiana cluster and many more.

2. The National Manufacturing Competitiveness Council (NMCC) has announced 10 schemes for developing global competitiveness of the Indian MSMEs in the manufacturing sector.

3. The Ministry of MSMEs announced the Cluster Development Program for enhancing productivity in MSMEs. This Program also provides financial assistance, and helps in identifying the infrastructure development

needs for the Common Facility Centre. This program has strengthened many clusters in India.

Limitations of clusters

Enterprises with common business initiatives will come together and form a cluster. Although clusters offer several benefits in terms of reducing the cost per unit, financial aid, specialized skills etc. still most of the clusters lack proper networking due to which they face several problems. "When clusters are unable to shift from stagnation to growth their potential to contribute to the local communities remains largely untapped".

Most of the common problems associated with in clusters are:

1. Low level of trust among the firms.
2. Conflicts and cut throat competition among firms: Clustered firm's sometimes starts competing within the cluster due to which they limit their scope of growth as well as innovation.
3. Exchange of information: Most of the firms within cluster share only basic information about their business due to which they restrict their synergy and collective behavior.
4. Clash in Business Objectives: Most of the conflicts occur when firms within the cluster operate with different vision and different business objectives thus there lay lack of commitment towards common goals.
5. Clustered firm's limited collective behavior reduces their ability to react to policy changes. Individual firms outside any cluster are more adaptable towards sudden changes in Industry or Government policy, as they face fewer constraints in their business.

Conclusion

The results suggest that SMEs in India plays a pivotal role in the growth of Industrial economy of India. Along with high growth, MSMEs are also facing a number of problems like increased domestic and international competition, lack of training, lack of advance technology and infrastructure etc. In the era of globalization there lies an urgent need for cluster based approach in the operation of SMEs. Cluster approach will work as a key strategy to make SMEs competitive in the market. Due to several advantages associated with clustering, small entrepreneurs gets an

opportunity to operate their business profitably yet within their own boundaries. The government's and UNIDO's facilitator role will make the operation of firms within the cluster smooth and transparent. Further Government can strengthen SMEs by providing improved infrastructural facilities such as roads, electricity and water supply in the coming future.

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