Enhancing the Competitiveness of Clusters in Global Economy: Strategies and Initiatives

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Abstract

The paper attempts to identify strategies for improving the competitiveness of the clusters, with special reference to sports goods cluster at Jalandhar. The study identifies three levels i.e. country level, cluster level and firm level; which can enhance the competitiveness of the cluster. Based on the analytical framework within the cluster, various recommendations are provided at different levels which can improve the competitive ability of sports goods cluster at Jalandhar. Empirical evidence suggested that a number of initiatives are required to be taken by the individual firms, cluster and Government with an objective to face new competitive pressure.

Keywords: Global Economy, Strategies, Competitiveness, Clusters.

Introduction

The concept of competitiveness among industrial clusters, even in the era of liberalization and globalization has attracted the attention of researchers towards the dynamic advantage of firms working at the cluster level. Clusters are found as important drivers of competitiveness (Porter, 1990; Bail, 2008; Ferreira and Cristina, 2009). Clusters help in improving the competitiveness of the firms located therein. The process of clustering contributes to the competitiveness and growth of the participating firms (Basant, 2006). Porter (2000) defined that companies located in clusters tend to be more competitive, export more and generally are involved more in international trade. The author explained that firms within the cluster are more productive than firms outside it. If the competitiveness of the cluster is improved, it will lead to improvement in the competitiveness of the firms located within it. Research shows that prosperity of a location, and the opportunities for its companies and clusters to reach higher levels of productivity, depend on general business environment, not just macro economic, social, political and legal context, geography and other institutions (Ketels and Memedovic, 2008). The presence of clusters as a part of such business environment can enable the firm located in the cluster, to improve their performance. The presence of firms in a strong cluster enables the firm to convert the advantages of business environment into competitive advantages. Various studies on cluster shows that the co-location of firms within cluster provides a number of cost/ resource based advantages (Basant, 2006; Bail, 2008). The horizontal and vertical collaboration between the firms help to achieve greater efficiencies in the form of reduced transaction cost, improved innovation and increase demand in the market. The process of networking and clustering help in contributing the competitiveness and enhance the growth of participating firms. Research shows that the growth experience of clusters is varied as new competitive pressure requires more than collective efficiency to break into global markets (Albaladejo, 2001). It

leads to change in whole concept of competitiveness which aims to continuously supply market with right product, right quality and right time.

The present paper aims to identify the strategies for enhancing the competitiveness of cluster, with special reference to sports goods cluster of Jalandhar. The study identifies three type of initiatives i.e. country level, cluster level and firm level initiatives to improve the competitiveness of the cluster. Based on analytical framework, policy recommendation are provided to foster competitiveness of the cluster.

Review of Literature

One of the important reasons that justify the increasing interest of the researchers in the cluster is its presumed impact on company's performance, regional development and countries competitiveness (Rocha, 2004). Porter (2000) states that cluster are synonymous of competitiveness given that they contribute positively to innovative processes, they facilitate relations with other institutions, better enabling the consumer needs, canalizing knowledge and information need for technology development.

Discussing the concept of clusters, an industry cluster can be defined as as group of related firms, industries or suppliers and various institutions located at a particular place. Alfred Marshall gave the first clear description of industry clusters and conducted a study of the Lancashire Cutlery Industry and Sheffield Steel Industry and noted down that there was a tendency among the specialized companies to cluster together in such a way that it produced geographic concentration of activities which he called Industrial Districts. Marshall observes how "…… great are the advantages which people following the same skilled trade get from near neighboring to each other…". The agglomeration of similar or related firms generates a number of external economies which lead to decrease in the cost for cluster producers. Such economies include a group of specialized workers, facile availability of suppliers and hasty transmission of new knowledge. The concentration of similar firms attracts and obtains benefits from a group of labour possessing common skills. The risk of individual worker is less by locating at a place where lots of employment opportunities are procurable. Further, the group of firms present in the cluster motivates the suppliers to locate at a place where readymade market is available. There is quick dissemination of ideas and knowledge as the ideas can easily move from one firm to another.

Location experts redefined the ideas given by Marshall that the firms benefit being located near other firms. They explain two types of external economies; localization economies (economies from proximity to dissimilar firms, especially firms in same industry) and urbanization economies (benefits from proximity to dissimilar firms, especially firms in other industry).

However, it was only in 1990's that the interest in concept of clusters was enlightened when Michael E. Porter conducted a global study of world's most successful businesses and found that firms from one or more nations achieved astonished success in particular industries. The author explained cluster as a geographic concentration of interconnected companies and institutions in a particular field. Porter (1990) elucidated that clusters include-

1. Linked industries and other entities such as suppliers of specialized inputs, machinery services and specialized infrastructure.
2. Distribution channels and customers, manufacturer of complementary products and companies related by skills, technology or common inputs.
3. Related institutions such as research organizations, universities, standard setting organization, training entities and others

Clusters not only reduce transportation cost and boost efficiency but improve incentives and create collective assets in the form of information, specialized institutions and reputation amongst others. Clusters enable innovation and speed productivity and growth. They also ease the formation of new businesses (Porter, 1990). The horizontal and vertical association amongst the firms present in the cluster provides the benefit of specific infrastructure, reduced transaction cost, large access of the market, rapid innovations, availability of cheap and skilled labour.

The presence of a large number of competitors in the cluster motivates all the firms to take notice of each other's action and try to adopt the best strategy to face the competition. Buyers become more sophisticated as they expect a lot of attention from the supplier and because of this, the supplier is required to provide the best services to its customers. Due to the presence of number of institutions in the cluster who are using same skills, same technology and same inputs, more and more education institutions, Government bodies, new firms and new institutions become part of the cluster. With the development of the cluster, the resources start moving from the firm that cannot employ those resources effectively to the firms that can employ the resources efficiently. Suppliers located in the cluster provide cooperation with the industry's research and development efforts. Further, the customers present in the cluster provide the possibility of transferring the information about new needs and technologies and demanding extraordinary goods and services. The concentration of domestic rivals, suppliers and customers help the city or region in becoming a unique environment for competing in the market. The presence of information flow, mutual reinforcement and visibility present in the environment gives a meaning to the observation of Alfred Marshall that in some places, the industry is in the air. Further the presence of Government and various industrial associations ensure various benefits which cannot be available to the firms if they are located in another area.

Sports Goods Cluster at Jalandhar

The origin of sports goods Industry of India can be traced back to Sialkot, Pakistan. In 1947, after partition, the entrepreneur belonging to one community decided to shift from Sialkot. The workers belonging to that community also migrated along with the entrepreneurs. As per the resettlement plan of Government of India, initially these migrants settled in Batala but later on shifted from Batala to Jalandhar. (UNIDO, 2001, p.3). At Jalandhar, the raw material required was easily available. Some of the migrants shifted to Meerut where also the raw material required was available.

Punjab and Meerut have emerged as the leading centers for sports goods manufacture and the only industry which appears to offer some prospects is sports goods industry of Punjab. Meerut is yet to

become powerful (Chandra Mohan, 2002).

Jalandhar has grown as the major centre of Indian sports goods industry. Meerut in Uttar Pradesh is the second and Gurgaon in Haryana is the third largest cluster of sports goods manufacturing. (NPC, 2009, p.1).

Database and Methodology

Primary data was collected to study the problems faced by the cluster and factors which can affect the competitiveness of the cluster. The universe of the study was the sports goods units registered with District Industries Centre i.e. 734 (As per figures given by District Industries Center, Jalandhar). A sample of 150 units (i.e. 20% of the total population) was taken to represent the universe. Here convenience sampling was used to draw the sample and collect the data from sample. Personal investigation method was applied.

Strategies/ Intiatives for Improving Competitiveness of The Cluster

Country Level Initiatives

Macro level forces reflect the environment in which all the firms operate. The policies related to micro, social, economic and legal environment falls under this umbrella. It contains the policies framed for control and regulation of the firms working under same conditions. A stable macro environment and a supportive regulatory framework improve the competitiveness of the cluster. It provides incentives to the firms to increase their savings and then employ those savings into investments. Government should take various initiatives to strengthen macro planning, assist and help the firms to take full advantage of proximity. Various initiatives should be taken by the Government for improving the innovative capabilities of the firms, convincing them to adopt quality standards, implementing various financial schemes, establishing research institutes, providing information about innovations to the firms, launching joint projects for collective purchasing, collective marketing, training of workers and testing of raw material. These services can be provided either by establishing business development service providers or public service centres. The nature of these initiatives varies from sector to sector but their main feature is to overcome the problem faced by the cluster. Both public and private service providers should adopt a customer oriented, collective and cumulative approach to reduce transaction costs, increase outreach and stimulate the sustainable growth of firms (Humphrey and Schmitz, 1996).

The sports goods cluster of Jalandhar is also affected by these factors. Central Government and the Punjab Government have designed various policies for sports goods industry. It is found that most of the policies are to promote the exports of the products but there is absence of any policy for the promotion of sports goods cluster. As far as domestic market is concerned, it is found that only one policy is framed by Government of Punjab for the providing incentives to domestic players. It is observed that the exporters are satisfied with the incentives provided by the Government but domestic players are highly dissatisfied with the role of Government. UNIDO (2001) conducted a study on sports goods cluster at Jalandhar and found that Government had provided support to the exporters for the promotion of exports but no support is provided to the domestic market. It shows that even after expiry of ten years, no initiatives are taken by the Government for providing support to the enterprises dealing in the domestic market.

Various firms have reported that the Government announces various policies but they are never implemented. For example, one per cent freight subsidy was declared by the Government of Punjab but this subsidy has never been given to the firms. It is seen that some firms are even not aware about the policies issued by the Government. Various initiatives are required to be taken by the Government to promote the growth and development of the cluster. These initiatives are:

1. It is seen that many firms in the cluster are not aware about various policies which are framed for the sports industry. In order to ensure that the benefit of the policies should reach the firms for which these policies are designed, the Government should prepare a database of the firms. Though the information about the registered firms is available with District Industries Center but a number of unregistered firms are also present in the cluster. Government should try to track all those unregistered firms. The services of local associations or Central Statistical Organization can also be availed for such purpose.
2. An information center should be established by the Government under Cluster Development Programme where all the latest information relating to technology, innovation, raw material should be available. This information should be provided to each firm in the cluster so that they become aware of the latest innovations.
3. It is seen that in the international tournaments all those sports equipments are used which are certified by international federations. But fee for such certification is very high which every firm is not able to pay. The Government should provide subsidy in the cost incurred by the firm to obtain the certificates.
4. A number of trade fairs and exhibitions are organized in various parts of the world. Sports Goods Export Promotion Council is providing help to various exporters for the participation in the sports fairs. But this support is provided to its registered members. But a number of micro enterprises do not participate in such exhibitions. The Government should provide subsidy to these small scale concerns so that they can also participate in such trade fairs.
5. The Sports Goods Export Promotion Council has been established by the Government of India with the objective of promotion of export outside India. The council is providing services to a handful of exporters which are registered with the council. There is a need to redefine the role of council by providing services to all the firms engaged in the manufacturing of sports goods irrespective of the fact that the firm is an exporter or not.
6. A Business Development Cell should be established in the cluster where at least some full time professionals should be appointed. These professionals should work on collection of latest information in the international market. The cell can be funded under Sports Goods Export Promotion Council or Cluster Development Scheme by Government of India.

7. The Jalandhar cluster should be declared as the Special Economic Zone. Declaration of cluster as the Special Economic Zone will help in promotion of exports. A large investment from domestic as well as foreign market will be attracted. The infrastructure facilities can be easily developed leading to up gradation of existing technology and easy adoption of innovations. A better infrastructure will attract new firms leading to creation of employment opportunities.
8. Various research institutes or universities should be established that can help the cluster in enhancement of the research activities. Apart this, the Department of Industries, Government of Punjab, should help the cluster in getting information about the innovations from other research institutes located outside the cluster.
9. VAT is applicable in Jalandhar but not in Meerut. The Government of Punjab should exempt VAT in the Jalandhar cluster also so as to improve its competitiveness.
10. The cluster is facing tough competition from China. The Government should impose antidumping duty on sports goods imported from China. It can lead to the equalizing of price of products of both the countries.
11. While purchasing the sports equipments, various agencies like Sports Authority of India, Central Government, State Government etc, should give preference to Indian sports equipments. All the tournaments which are held in India should be required to purchase products of Indian brands only.
12. Most of the firms in cluster do not go for advertising their products due to high cost of advertising. DD sports, a national channel for sports goods should encourage more advertising on their channel by advertising Indian sports equipments at concessional rates.
13. Most of the firms in the cluster resist providing training to the workers because they do not want to bear the cost of training. The public sector in association with private sector should establish specialized training institutes to cater the needs of the cluster. Some kind of specialized training institutes to train workers in manufacturing different types of sports items would be beneficial for the industry and would pave the way for generating employment in this sector (Krishnamurthy, 2008, p.78).
14. Jalandhar cluster is facing scarcity of Kashmir willow. The Government of Jammu and Kashmir has banned the movement of clefts from the state. Punjab Government should take various initiatives to convince the Government of Jammu and Kashmir for free movement of Kashmir willow within the country. Ban on movement of willow within India should be removed (NPC, 2009, p.58).

Cluster Level Initiatives

It includes various joint initiatives and inter-firm collaboration between the firms located in a cluster. Sengenberger and Pyke (1992) stated that the problem of many firms is not their size but rather their isolation. Research shows that geographical concentration of firms inculcates various economies and lead to joint action. Mishan (1971) explained that external economies are the unplanned gains that occur as a consequence of the unintentional influence that firms have when they are in close proximity to each other. The strong ties between the firms help in overcoming the constraints faced by them individually. Schmitz (2000) defined term collective efficiency as an integrating concept that captures both external economies and joint action that result from geographical agglomeration. Research shows that clustering stimulates a process in which companies create a niche for accumulating know-how, skills and capital (Albaladejo, 2001, p.5). The collective efficiency does not means absence of competition and conflict between the firms but it emphasize on the benefits which the firm will not enjoy if they will not work together. It also includes various initiatives taken by the industry associations to bring all the firms under a common platform.

With regard to Jalandhar cluster, it is found that there is an element of information sharing among the firms located in the cluster. Table 1.1 shows the distribution of firms on the basis of sharing of information.

Table 1.1: Information Sharing among the Firms

Information Sharing	No. of Firms	Percentage
Yes	88	58.7
No	51	34
No and not even intention to share	5	3.3
No and never thought about it	6	4
Total	**150**	**100**

(Source: Based on Field work)

Table 1.1 depicts that 58.7 per cent of the firms share information with the competitors located in cluster while 41.3 per cent of the firms do not share information. Out of these firms, five firms even do not have the intention to share information and six firms had never thought about sharing information.

It is found that the information is shared among the firms at both formal and informal level. At the formal level, various meetings are organized by the industry associations where all the members of association discuss industry related matters. At informal level, the entrepreneurs of various firms, who are friends or inmates exchange industry related information with each other. Gulati (1995) stated that 'firms create relationships with other firms with whom they are interdependent with regard to resources and with

similar others with whom they are connected through direct or indirect ties.' Table 1.2 shows the distribution of firms by sharing of information

Table 1.2: Level of Information Sharing

Level of Information Sharing	No. of Firms	Percentage
Mainly at informal, social level	32	21.3
Mainly at formal, business level	17	11.3
At both formal and informal	39	26
No sharing	62	41.3
Total	**150**	**100**

(Source: Based on Field work)

A perusal of table 1.2 reveals that 21.3 per cent of the firms share information at informal level, 11.3 per cent of the firms share only at formal level and 26 per cent of the firms share information at both levels.

The Jalandhar cluster is not active in cooperating with the competitors. Though firms in cluster share information with the competitors but there is absence of cooperation among them. Table 1.3 shows the distribution of the firms by kind of cooperation with other firms.

Table 1.3: Kind of Cooperation Firms render to the Competitors located in the Cluster.

Kind of Cooperation	No. of Firms	Percentage
Sharing of machines	5	3.33
Collective marketing	0	0
Collective purchase of raw material	16	10.67
Development of a new product	6	4
Training of manpower	2	1.33
Sales promotion through trade fairs/ exhibitions	3	2
Share latest information	6	4
Up-gradation of technology	3	2
No cooperation	131	87.33

(Source: Based on Field work)

A perusal of Table 1.3 shows that 87.33 per cent of the firms do not cooperate with the competitors while 10.67 per cent of the firms reported that they purchase raw material along with the competitors. Only four per cent of the firms reported sharing of latest information and development of new product. From the field survey, it is observed that few firms located in Jalandhar cluster cooperate with the other firms only upto limited extent i.e sharing of machines, training of manpower, collective purchase of raw material but firms do not cooperate with regard to marketing related activities. The information obtained out of personal contacts is not shared with the competitors. Every firm considers the information obtained about its client and the export prices as a top secret.

Many such initiatives are required in sports goods cluster of Jalandhar to strengthen the cluster level initiatives. These initiatives are:

1. It is seen that firms in the cluster do not cooperate with each other. Various associations should enhance cooperation between the firms. Organizing regular meetings, participation of the cluster in various trade fairs and exhibitions can increase the level of information sharing as well as cooperation within the cluster. It is seen that the firms become members of the associations but they do not actively participate in the working of the association. Role of each member of the association should be clearly defined so that each member participates in the working of the association.
2. It is found that there are too many associations in the cluster. Many firms are member of more than one association. It is advisable that all the associations should be merged to formulate a single association which will cater to the demands of the sports cluster. It can help in providing a single platform for the cluster as well as Government to discuss various issues. Further a regular communication system should be developed by the associations i.e. schedule for meeting should be fixed so that regular interactions between the members can be enhanced.

3. It is found that the associations do not have enough staff to work on various issues. The office bearers of the associations are the entrepreneurs who are busy in their normal course of work within their firm and do not have much time for the activities of the cluster. There is an immediate need of the full time professionals to be appointed within the associations for enhancing the activities of association and in turn that of the cluster. Further, a regular publication or journal should be published by the association to disseminate the latest information to the cluster players.
4. The firms that do not want to get their raw material tested before its use should be convinced through seminars or workshops regarding the advantages of testing the raw material. Various industry associations should take initiatives to organize such seminars in order to provide information to such firms.
5. It is found that most of the firms in the cluster are labour intensive and use of machinery is minimum. Most firms still manufacture traditional items of sports, which are mostly hand made and there by require very little of machinery (Krishnamurthy, 2008, p.78). The export promotion councils and local associations should organize various trade fairs of suppliers of machines; give information to the firms regarding benefits of using new technology and make arrangements for the availability of that machine.

Firm Level Initiatives:

The overall performance of cluster is directly affected by the performance of individual firms. The competitiveness of the cluster is dependent upon the adoption and up gradation of technology by the firms. The dynamic competitiveness of clusters depend on a continuous process of technological learning and upgrading within the firms (Albaladejo, 2001, p.6). The firms with the strong tendency of technological up gradation creates learning network within the cluster and improves its performance. Research shows that enterprise within the cluster must pay attention to human resources, innovation and research to enhance cluster competitiveness (Wenping and Guoning,2000). The firms should develop strategies for human resource development, fulfill their social responsibility, adopt quality standards and take initiatives for joint action and cooperation with other firms located in the cluster. Cooperation ties breed technology- related information flows that might lead to incremental capability building for the parties involved (Albaladejo, 2001, p.6).

As far as Jalandhar cluster is concerned, it is seen that 79.3 per cent of the firms are not adopting any standard (Table 1.4). UNIDO (2001) conducted a diagnostic study on sports goods cluster of Jalandhar and revealed that 'quality assurance is the other weak area of the manufacturing process.' It shows that even after 10 years, firms are not concerned about maintaining the quality standards. It is found that maximum firms are having ISO 9000. Only four firms are having ISO 14001 while two firms are having SA 8000.

Table 1.4: Adoption of Quality Standards by the Firms

Adoption of Quality Standards	No. of Firms
ISO 9000	30
ISO 14001	4
OSHAS 18001	0
SA8000	2
No standard	119

(Source: Based on Field work)

The firms do not test the raw material before its use. Table 1.5 contains the distribution of the firms on the basis of testing of raw material.

Table 1.5: Testing of Raw Material by the Firms

Testing of Raw Material	No. of Firms	Percentage
Yes	72	48
No	78	52
Total	**150**	**100**

(Source: Based on Field work)

A perusal of table 1.5 reveals that 52 per cent of the firms do not test the raw material. It is found that most of the entrepreneurs are highly efficient in producing the sports goods that merely by inspecting the raw material, they become aware about the quality of the products. These entrepreneurs are of the opinion that there is no need to send the raw material to labs for testing but their personal knowledge is sufficient to check the quality. It is found that only 48 per cent of the firms test the raw material before its use.

The sports goods cluster of Jalandhar is facing scarcity of manpower. Sports goods industry is labour intensive industry where 80 per cent of the work is done manually. The cluster is unable to find manpower easily. Table 1.6 shows the distribution of firms by their response regarding shortage of manpower.

Table 1.6: Shortage of Manpower

Shortage of Manpower	No. of Firms
Shortage of skilled workers	150
Shortage of semi skilled workers	7
Shortage of unskilled workers	3

(Source: Based on Field work)

Table 1.6 reveals that all the firms surveyed are finding difficulty in locating the skilled workers, seven firms found shortage of semi skilled workers and three firms reported that they are facing problem in the location of unskilled workers. It is found that the main reason behind the shortage of skilled worker is the absence of training structure in the cluster. Most of the firms follow traditional methods of training where a person joins as an apprentice, then moves to the category of semi skilled workers and later on after some years become a skilled worker. Table 1.7 shows the distribution of firms on the basis of training given to the workers.

Table 1.7: Training given by the Firms

Modes of Training	No. of Firms	Percentage
Training within the organization	65	43.3
Training outside the organization	1	.7
No training	84	56
Total	**150**	**100**

(Source: Based on Field work)

A perusal of table 1.7 reveals that 56 per cent of the firms reported that they do not give training to their workers. These firms are of the opinion that there is no need to give training to their workers as they have learnt the skills from their forefathers. Only 44 per cent of the firms provide training to their workers. Most of the workers are given training on the job. There are 65 firms who provide training to the workers on the job during the course of their work. The literature on cluster also supports this result. Yamawaki (2001) investigated the structure of industrial cluster in Japan and found that '80 per cent of Japan's industrial cluster use on the job training as the method to train workers and develop their skills.' Only one firm reported that they take their workers to other organization for training.

It is recommended that firms should pay more attention towards quality, adopt quality standards prescribed by various national and international bodies, get the raw material tested before producing the products, provide training to the workers and cooperate with other firms to undertake joint projects for enhancing the competitiveness of the cluster. The firms should develop and implement innovative ideas for improving the performance of the cluster.

Conclusion

Sengerberger and Pyke (1992) had defined two industrial strategies that should be followed by clusters to face the international competition. These strategies are: high road and low road. High road strategy involves improving the competitiveness by improving quality and adopting innovation. The firms following this strategy are continuously involved in the process of technological up gradation and try to find out new ways of facing the competition in the international market. These firms believe in promoting competition through cooperation, joint action, participation in meetings and joint conflict resolution.

Low road strategy involves improving the competitiveness through low price. These firms are engaged in the process of reducing labour cost and use to operate in a deregulated market environment. Such firms do not invest in improving physical and human capital. These firms are engaged in supplying goods to domestic market where customers are not quality conscious.

Sengenberger and Pyke (1992) argued that clusters do not match these industrial strategies. Brusco (1992) argued that it is common to find group of firms, that, within the same cluster follow different restructuring strategies. In fact, cluster is a key to high road path and improve its competitiveness.

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