



International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at <http://www.serialsjournals.com>

© Serials Publications Pvt. Ltd.

Volume 15 • Special Issue • 2017

Industry Clusters and Business Development Providers: a Case of Sports Goods Cluster at Jalandhar

Priya Jhamb¹ and Surinder Sharma²

¹Assistant Professor, Amity College of Commerce and Finance, Amity University, Noida. E-mail: pjhamb@amity.edu

²Associate Professor, Doaba College, Jalandhar, Punjab. E-mail: sskaushishb@rediffmail.com

ABSTRACT

The ever increasing competitive pressure and globalization are forcing industry clusters to strive to position themselves in the current environment. Business Development Services are designed to help micro, small and medium enterprises located in the cluster overcome barriers to improve productivity and profitability. The present study is conducted to study the presence and role of business development service providers in industrial clusters. The study was carried out in sports goods cluster of Jalandhar. The study also aims to provide suggestions for improving the role of BDS providers in order to ensure growth and development of the cluster. It is found that there are number of BDS providers located in the cluster. They are providing services at such a small level that all firms in the cluster are not able to take benefit of these services. The business development service providers should act as one stop shop and point of reference for the actors in the cluster, provide their expert advice to the cluster and promote its growth and development.

Keywords: Industrial clusters, Business development service providers, growth of cluster.

1. INTRODUCTION

The ever increasing competitive pressure and globalization are forcing industry clusters to strive to position themselves in the current environment. The clusters are under huge pressure to adopt more innovative approaches in production, decision making and marketing their activities so as to achieve a competitive position and further maintain it in long run.

Business Development Services are designed to help micro, small and medium enterprises located in the cluster overcome barriers to improve productivity and profitability. The term BDS was coined in 1990s by Committee of Donor Agencies for Small Enterprise Development (CDASED, 2001), in order

to replace non financial services. CDASED (2001) defined BDS as services that improve the performance of the enterprise, its access to market and its ability to compete. BDS are services provided by external business experts to an enterprise in various financial areas where enterprise needs improvement in order to make them more competitive. BDS include providing information about new technology, marketing assistance, advisory services, technological development.

The industry clusters in India are facing competition from the domestic as well as international market. The majority of the Indian clusters are facing various problems like obsolete technology, lack of information, poor linkages in market, poor quality products and inadequate system of management. It is seen that most of the clusters are surviving only because of low cost of labour. They do not participate in supportive production networks, neither have they collaborated nor they compete with other firms on the basis of improvement in product, skills or technology.

Some of the main obstacles hampering cluster development are: the lack of a cultural attitude towards cooperation both at the firm and the institutional level; the significance of transaction costs that need to be borne to identify suitable network partners and to forge relationships; the absence of incentives to the implementation of common projects; the imperfect market functioning for the provision of crucial inputs for networking development such as information and innovation; and the high risk of free riding that is especially faced in contexts where the legal framework to back up joint endeavours is relatively underdeveloped (Ceglie *et al*, 1999). Research shows that under achieving clusters are characterized by environment where information do not flow easily and where stakeholders are not involved in sharing information. UNIDO (2001) found that stakeholders located in such clusters do not have any relationship with BDS providers and are not interested in taking help from such experts. UNIDO has characterized these types of clusters as having extremely fragmented knowledge, absence of discussion forums and latent conflicts.

The UNIDO report on 'Reconstructing and Modernization of Small and Medium Enterprise Clusters in India' (1996) points out that the clusters are required to expand their exports and for this purpose there is need to create relationships both within the cluster and overseas clusters. Technological up-gradation and maintaining quality standards is required urgently. Further, the Government is required to frame various policies and programmes for the up-gradation of the cluster.

The presence of BDS providers can help the firms located in the cluster to grow and work in a better condition. Research shows that good business support can make a remarkable contribution to the dynamism and competitiveness of an economy (Barisic, 2004). BDS providers not only aim to maximize the exchange of knowledge but also provides an opportunity to enhance innovative agenda and provide means to implement the innovation.

The main task of business support organizations is to help clusters to develop their business activities, particularly during the turning points of cluster life cycle. There are number of services which are provided by BDS providers, but main concern is towards providing information and expert opinion to entrepreneurs and managers. BDS organizations aims to provide consistent and coherent support with objective of helping enterprises to build their capacity to manage for their growth and development (Barisic, 2004). The role of BDS providers is somehow similar to the role of tutor or instructor or trainer that gives instructions about well being of organization. Barisic (2004) stated that BDS providers take a broader view of the health of an organization rather than exclusively concentrating on immediate problem. BDS providers should restructure their activities in the context of economic conditions both at regional and local level. Their role can be defined

as promotion and development of cluster by enhancing the level of cooperation among the stakeholders located within the cluster. The location of homogeneous enterprises within a limited geographical area facilitates the intervention of BDS providers because of similarity of needs and requirement of supportive activities. It also helps in distribution of fixed cost of BDS interventions among beneficiaries.

Research shows that the real help that BDS providers can provide is the core advice and information services of support agencies. The advice is provided on the basis of more systematic and consistent approach that can help a cluster to strengthen its own capacity. BDS providers should update the cluster by providing information about innovation in technology. BDS providers can also support firms by providing training about latest technology to workers at minimal cost. BDS agencies should regularly update itself about new changes in business environment of the cluster for which they are working.

It is found that business use support services only at critical stages of development. The BDS services are particularly important for an enterprise when it is starting up or firm is at sensitive stage of development. Research shows that good business support present in the cluster can make a remarkable contribution to the competitiveness and dynamism of modern economy. Various services that can be provided by BDS providers can be identified as:

1. Market Access
2. Input Supply
3. Product and technology development
4. Training and technical assistance
5. Infrastructure
6. Policy/ Advocacy
7. Finance
8. Alternative financing mechanisms
9. Infrastructure

(Source: BDS for Small Enterprises: Guiding Principles for Donor Intervention; prepared by Committee of Donor, Agencies for Small Enterprise Development, Washington, USA, Feb 2001).

Barisic (2004) identified various types of BDS providers who may be individuals, private not for profit firms, NGOs or government agencies. BDS include a wide array of business services, both strategic and operational. BDS are designed to serve individual businesses, as opposed to larger business community. Research shows that there are three types of programs relating to business development:

1. Financial services
2. Enterprise development or BDS
3. Enabling Environment

The present study is conducted to study the presence and role of business development service providers in industrial clusters. The study was carried out in sports goods cluster of Jalandhar. The study also aims to provide suggestions for improving the role of BDS providers in order to ensure growth and development of the cluster.

2. 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).

3. OBJECTIVES OF THE STUDY

Present study has been conducted, keeping in view the following objectives:

1. To study the presence of business development service providers in sports goods cluster of Jalandhar.
2. To identify the role of BDS providers in the growth of sports goods cluster of Jalandhar.
3. To provide suggestions for improvement of role of business development service providers to enhance the growth and development of cluster.

4. DATABASE AND METHODOLOGY

Primary data was collected to study the presence of Business Development Service providers in 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.

5. RESULT AND DISCUSSIONS

The presence of Business Development Service providers help in the growth and development of cluster but these service providers are not active in the Jalandhar cluster. It is observed that only a few research institutes are present in the cluster. Table 1 shows the distribution of firms by their response about the presence of business development service providers.

Table 1
Presence of Business Development Service Providers in the Cluster

<i>Presence of Business Development Service Providers</i>	<i>No. of Firms</i>	<i>Percentage</i>
Yes	11	7.3
No	139	92.7
Total	150	100

Source: Based on Field work

A perusal of Table 1.1 reveals that 92.7 per cent of the firms denied the presence of research centers in the cluster. Only 7.3 per cent of the firms reported the presence of research centers or individual researchers in the cluster. The main reason behind the least presence of BDS providers is that most of the entrepreneurs do not want to take the help of any outside agency. These entrepreneurs themselves are fully aware about functioning of the firm and personally supervise the total work carried out in the firm. They keep all the business related information as a top secret and do not want to share it with the outsiders. They are of the opinion that they are not going to get any benefit out of various development programmes organized by these agencies. Besides these firms, few firms which are interested in innovation, actively participate in various programmes organized by these service providers.

Various BDS providers located in the cluster are:

- 1. United Nations Industrial Development Organization (UNIDO) :** UNIDO is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability. It was established in 1966 in United Nations. On the request of Ministry of Industry, Government of India, it starts conducting mapping of SSI clusters, promote pilot projects in the selected clusters and assist the ministry to formulate a national cluster development programme. It assesses the competitiveness of SSI clusters and assists the stakeholders present in the cluster in formulating a strategy to improve the performance of cluster. The main aim of UNIDO is to strengthen linkages and to make the cluster actors self reliance so that they can work on their own. Apart from it, UNIDO also help the Government of India in organizing and implementation cluster development programme. UNIDO has worked on more than 100 Indian clusters. It had conducted diagnostic study in more than ten clusters. It had also conducted diagnostic study in Jalandhar to find out the prospects of the cluster. UNIDO has organized a visit of cluster actors and its officials to China and helps the cluster undertake CFC project. It had conducted a study in Jalandhar cluster on enterprise social responsibility. The active participation of UNIDO had given a direction to the Jalandhar cluster towards the concept of cooperation. UNIDO in association with SGMEA had organized two buyer seller meets in the Jalandhar cluster.
- 2. Sports Authority of India (SAI) :** SAI is established by Government of India in 1984 with an aim to promote sports equipments in the country. SAI has a number of sports development bodies working under it which provide a lot of services for standardization of sports equipments in the country. In Jalandhar cluster, SAI is a major buyer for the sports equipments.
- 3. Central Leather Research Institute (CLRI) :** CLRI is having a laboratory for the testing of leather, which can be used for the testing of fabric used in manufacturing of sports items. The institute is also having a training center for the production of leather garments that can be utilized in stitching of protective gears and sportswear.
- 4. Dr. B.R. Ambedkar National Institute of Technology (NIT) :** NIT is having a laboratory in which all the equipments required for testing of fabrics is provided. The institute is having a separate department called The Department of Textile Technology located in the institute and is providing help to various firms in the development of fabric used in manufacturing of various sports items. NIT in association with Technology Information, Forecasting and Assessment Council (TIFAC) had conducted a study in Jalandhar cluster to find out present technology status, causes of the technology gaps (if any) and recommended the measures for bridging the gap. NIT is also working towards the setting up of a research and development center for Jalandhar cluster.

5. **State Trading Corporation (STC)** : In 1970, State Trading Corporation (STC) has established its branch office at Jalandhar in order to promote the export of sports goods. STC made a plan to stock scarce imported items in order to supply them to exporters, when they require.
6. **Export Credit Guarantee Corporation (ECGC)** : ECGC is engaged in providing financial help to various firms present in the cluster. It provides insurance to various firms engaged in the export of sports goods. It provides an incentive to the firms for more exports.
7. **Small Industries Corporation (NSIC)** : NSIC was established in 1955 with a view to support, aid and foster the growth of Small Scale Industries in India. It has its head office at New Delhi and one of the branch offices at Jalandhar. It provides assistance in technical up-gradation, helps in purchase of machinery on hire purchase and provides exposure to the export market.
8. **Training Centre on Leather Garments of Khadi and Village Industries Commission (KVIC)** : KVIC is engaged in providing skill development training to the workers of sports shoe industry.
9. **SGS** : SGS is an international company which is providing services in the area of quality management and certification. When Jalandhar cluster was alleged for the use of child labour, the industry approached SGS to certify non use of child labour especially for export market. The involvement of such a reputed organization in the assurance of non use of child labour had helped the industry to reestablish itself in the export market.
10. **Small Industries Development Bank of India (SIDBI)** : SIDBI, the development bank of small sector helps in modernization of the sports cluster through its various products and schemes. The bank helps in entrepreneurial development of the cluster. Along with Oriental Bank of Commerce (OBC), it had launched a strategic alliance for enhancing funding of sports goods cluster of Jalandhar.
11. **District Industries Center (DIC)** : District Industries Centre registers the small scale industries working in India. These registered units get some benefits such as priority in getting bank loans, power connection etc. It also provides a Government self employment scheme, under which the workers of sports goods industry can get loan for setting up their enterprises.
12. **Process-Cum-Product Development Centre (PPDC)** : Considering the importance of Sports Goods Industry of India, Government of India has set up PPDC for sports goods equipments at Meerut. The main objective of PPDC is up-gradation of technology, provides training to the workers for improving the quality of products; develop new and improved products for the export markets. PPDC provides common facility services to the firms. PPDC under Ministry of Small Industries has set up a laboratory for testing of sports goods in Jalandhar. This laboratory was set up in the Central institute of Hand Tools, Jalandhar. This laboratory helps in testing of various sports goods.
13. **Association of Indian Sports Goods Industry (AISGI)** : AISGI was established to promote the interest of sports goods industry of India. Its main aim is to develop and strengthen the sports industry in India. AISGI is a body of firms that is mainly supplying goods to the domestic market. It has membership of more than 300 cluster based firms. The main objectives of the association are-

- a) To encourage coordination amongst the person/ bodies who are engaged in the production/export of sports goods.
 - b) To help its members to recover delayed payments from the outstation customers.
 - c) To encourage unity amongst the firms engaged in the business of sports goods.
 - d) To protect the interest of its members.
 - e) To follow up with the Government on tax related issues and statutory laws for the industry.
 - f) The association does not provide technology support or market related services to its members.
14. **Sports Goods Manufacturers and Exporters Association (SGMEA) :** SGMEA was established in 1978 consisting of sports goods manufacturers and exporters as its members. Although the membership of the association is limited to 50 firms, yet they are leading exporters of sports products and have a share of almost 90 per cent of the export from the country and have more than 50 per cent domestic market. The association also publishes a bi-annual journal called vision which provides information about the latest trends in the world market for sports equipments. The journal is widely circulated to all sports federation, Associations, Indian Embassies, Foreign Embassies in India and overseas consultants. The association also undertakes training of workers working in the cluster; organize seminars to impart information about the latest technologies and innovations to the firms. Two buyer seller meets have been organized by the association to help firms obtain raw material.
15. **Sports Goods Foundation of India (SGFI) :** SGFI is a Non Government Organization set up in 1998 by a group of entrepreneurs from the sports industry. The main aim of the association is to solve the issue of child labour in the sports goods cluster of Jalandhar. Apart from this, the association provides training to the workers for up-gradation of their skills and knowledge. It also organizes workshops on the development of soft management skills.
16. **Sports Goods Export Promotion Council (SGEPC) :** SGEPC established in 1958 is sponsored by the Ministry of Commerce and Industry, Government of India. It has its head office at Delhi and regional office at Jalandhar. The main aim of the council is to promote the export of sports goods out of India. It has leading manufacturers and exporters as its members. Its members consists of 200 manufacturers and exporters of sports goods. It is a common platform for various firms all over the country which are having common interest to exchange views and design various strategies for promotion of the products. SGEPC organizes various trade promotion activities like participation of Indian firms in international trade fairs, organization of various promotional campaigns in international market etc. It arranges stalls for Indian firms in such fairs. It provides latest trends and information to its members like various standards and specifications, marketing research, product quality and designs etc. It provides third party guarantee to overseas importers. It collects export data, maintains a statistical report of exports and evaluates the performance yearly. It also acts as a mediator between the Government and the sports industry as it provides information on industry requirement to the Indian Government and then informs the industry about the Governments directions. In case of any scarcity of raw material, the council helps in arranging the material. The big success of the council is the convincing of administration of Andaman and Nicobar to lift the ban on the export of cane, which is one of the important raw materials for the sports industry.

17. **Sports Forum** : Sports Forum was established to protect the interest of sports cluster of Jalandhar. It consists of 200 member firms. It consists of manufacturers and suppliers to the domestic market as its members. The association regularly conducts meetings, workshops, seminars and provides latest information to its members.

Various initiatives taken by BDS providers in the cluster are:

1. **Buyer Seller Meet Organized by Sports Goods Manufacturers and Exporters Association (SGMEA) and United Nations Industrial Development Organization (UNIDO)** : For the growth and development of cluster, the participation of firms in trade fairs is one of the effective methods. It helps in the formation of important links, innovation of new methods of production, technology up-gradation and working out of various business deals. It is an ideal platform to explore the latest raw material and equipments. Keeping in mind, various benefits of buyer seller meet; two buyer seller meets have been organized till now. The first meet was organized by United Nations Industrial Development Organization (UNIDO) and Sports Goods Manufacturers and Exporters Association (SGMEA) and was named as 1st International Sports Goods Raw Material Buyer Seller Meet. It was organized on Nov. 22, 23 and 24, 2004. There were 8 national and 15 international participants and 288 visitors. Suppliers of raw materials like boxing equipments, gloves, leg guards, PVC for inflatable balls and gloves, protective equipments, stitching threads and machinery for stitching were present. Many new products were introduced and queries of lacs of rupees were received. It is found that this meet generated the relationship with seven buying houses. The advantages obtained from the first buyer seller meet motivated the organizers to go for 2nd buyer seller meet. The 2nd International Sports Goods Raw Material and Machinery Buyer Seller Meet was organized on Sept. 28, 29 and 30, 2007 at Jalandhar. It was also organized by United Nations Industrial Development Organization (UNIDO) and Sports Goods Manufacturers and Exporters Association (SGMEA). There were 644 visitors and 21 participants (16 National and 5 International). This meet introduced innovative products in the field of football stitching machines, composite technology and printing solutions.
2. **CE Labeling** : The demand for soft protective equipments is on an increasing trend (SGEPC, Delhi). The manufacturers of these products are required to follow the safety standards laid down by European Union. UNIDO contacted with SES, Germany and an expert was called to advise firms about the requirements and use of standards. About seven firms received benefit out of this programme.
3. **Technology Gap Assessment Study by TIFAC** : TIFAC in association with Dr. B.R. Ambedkar National Institute of Technology had conducted a study to identify the gaps in technology and to suggest measures for future. Short term and long term measures were suggested by TIFAC. The short term measure suggested the use of alternate raw material i.e. one used for making carom boards. The long term measures suggested the cloning of willow and poplar.
4. **Training under CFC Project** : Under CFC project, a group of 10 firms which were the member of Sports Goods Foundation of India (SGFI), came together to start the production of machine stitched footballs. For the production of machine stitched footballs, workers are required to be properly trained. SGFI undertook efforts to provide training to the workers. Two workers from

each firm (10 firms) were trained over a period of one year. In order to provide training to the workers, five people were hired (two women, three men). On the whole, twenty workers were trained under this project. The average cost of training per worker was Rs. 9000 (approx.). The trained workers went back to their factories to give training to other workers. It ultimately led to reduction in cost of training per worker.

5. **Training Programme at CLRI :** In order to provide training to unskilled workers, a training programme was organized by Sports Goods Manufacturers and Exporters Association (SGMEA) along with Department of Science and Technology (DST) at Central Leather Research Institute (CLRI). The programme was carried out in 4 batches of three month duration each and an internship period of six months in the firms. A stipend of Rs. 1000 was paid to the trainees. The trained candidates were recruited in the member firms of SGMEA. The cost of training per worker was approximately Rs.4300. These trainees further provided training to other workers in the factories leading to reduction in the cost per worker. The trainees were appointed in the firms for salary between Rs. 3000 to Rs. 3500 per month.
6. **Training Programme on Skill Development :** Sports Goods Manufacturers and Exporters Association (SGMEA) along with Dr. B.R. Ambedkar National Institute of Technology, Jalandhar had organized skill development training through Science and Technology (STST) on polymer based sports goods. The aim of this programme was to upgrade the skills of persons involved in the production of polymer based sports goods.

The programme was designed to train the existing/ would be entrepreneurs/ supervisors of the industry. The programme aimed at imparting both theoretical and practical knowledge. Under theoretical training, people were given complete knowledge about the polymer technology and its use. In practical training, the laboratory exercise was done in order to make the trainees fully aware about the technology and its efficient use.

6. SUGGESTIONS AND CONCLUSION

Research shows that there are number of BDS providers located in the cluster. They are providing services at such a small level that all firms in the cluster are not able to take benefit of these services. 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.

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. Further, regular meetings should be organized by the associations with the Government to discuss their problems and convince the Government to take remedial action.

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.

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.

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 assistance about the innovations from other research institutes located outside the cluster.

The BDS providers should analyze the type of assistance required by the firms. It requires deep understanding of the constraints and weaknesses of the cluster, likely threat in the future and the potential of cluster to face such constraints and threats. The presence of business development service providers helps the firms with the following aspects:

1. To provide information relating development of new product, design and technology to the firms located therein.
2. Consulting the experts for preparation and implementation of new business plans and projects.
3. Providing training to the workers.
4. Enhancing the element of networking and cooperation among the cluster actors.
5. Providing assistance to the firms in undertaking research and development initiatives.
6. Maintaining database of various initiatives and policies issued by the Government for the cluster and its implications.

The business development service providers should act as one stop shop and point of reference for the actors in the cluster, provide their expert advice to the cluster and promote its growth and development.

References

- Albaladejo, Manuel. (2001, May). *Determinants and policies to foster the competitiveness of SME clusters: Evidence from Latin America*. QEH Working Paper Series, Working Paper Number 71.
- Aleksandar, Karaev, Lenny, S., C. and Leslie, Szamosi. (2007). The cluster approach and SME competitiveness: A review. *Journal of Manufacturing Technology Management*, 18 (7), 818-835.
- Aleman, Paola, Perez. (2005). Cluster formation, institutions and learning: The emergence of clusters and development in Chile. *Industrial and Corporate Change*, 14(4), 651-677.
- Andersson, T., Serger, S., S., Soervik, J. and Hansson, W., E. (2004). *The Cluster Policies Whitebook*. International Organisation for Knowledge Economy and Enterprise Development, Maime, Sweden.

- Banga, Samiksha. (2008). *Economic impact assessment of UNIDO CDP in Jalandhar sports goods cluster*. Summer Internship Project Report, UNIDO.
- Barisic, Anton Florijan (2004). Business Development Services as an institutional support to local economic development. Available online http://4managers.de/fileadmin/4managers/folien/BDS_BarisicMasterWork_200507.pdf.
- Bharadwaj, R., P. and Kumar, Gulshan. (2007). Performance of sports goods industry in Punjab. *Indian Management Studies*, 11, 49-65.
- Committee of donor agencies for small enterprise development, 2001. Business development Services for small enterprises: guiding principles for donor intervention. Washington: Worldbank.
- Ceglie, G., Dini, M. and Clara, M. (1999). *SME cluster network development in developing countries: The experience of UNIDO*. UNIDO Report.
- Ceglie, G. (2003). *Expert Group Meeting on Cluster and Network Development with Special Emphasis on Monitoring and Evaluation Issues*, UNIDO, Vienna.
- Clara, Michele, Russo, Fabio and Gulati, Mukesh. (2000). *Cluster development and BDS promotion: UNIDO experience in India*. Working Paper No.6, Private Sector Development Branch, Investment Promotion and Institutional Capacity Building Division, United Nations Industrial Development Organization. <http://www.unido.org/fileadmin/user_media/Publications/Pub_free/Clusterdevelopment_and_promotion_of_business_development_services.pdf>. Accessed 2016 Dec, 25.
- Davies, H. and Ellis, P., D. (2000). Porter's Competitive Advantage of Nations: Time for a final judgment?. *Journal of Management Studies*, 37(8), 1189-1213.
- Mohan, Chandra. (2002, September 25). Punjab's disturbing industrial scene II. *The Tribune*, pp.10.
- National Productivity Council.(2009). *Competitiveness of Indian Sports Goods Industry*. Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, New Delhi.
- Porter, Michael, E. (1990). *The Competitive Advantage of Nations (1st Edition)*. Palgrave, New York Press.
- Porter, Michael, E. (1997). New strategies for inner city economic development. *Economic Development Quarterly*, 11(1), 11-27.
- Porter, Michael, E. (1998a). Clusters and the new economies of competition. *Harvard Business Review*, 76(6), 77-90.
- Porter, Michael, E. (1998b). *On Competition*. Harvard Business School Publishing, Massachusetts, Boston.
- Porter, Michael, E. (2000). Location, competition and economic development: Local clusters in a global economy. *Economic Development Quarterly*, 14(1), 15-34.
- Porter, Michael, E. (2007). *Clusters and economic policy: Aligning public policy with the new economics of competition*. Harvard Business School, ISC White Paper.
- UNIDO.n.d. *Draft methodology: UNIDO cluster development programme*, UNIDO, New Delhi.
- UNIDO.(2001). *Diagnostic study – SME – The sports goods cluster, Jalandhar, Punjab*. UNIDO, New Delhi.
- UNIDO.(2008). *Diagnostic study – Sports goods cluster of Sialkot, Pakistan*. UNIDO, Lahore.

