



Cluster Development Programme, India

DIAGNOSTIC STUDY

SME

THE SPORTS GOODS CLUSTER

JALANDHAR, PUNJAB

By UNIDO CDP, New Delhi

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1. DESCRIPTION OF THE CLUSTER

The sports goods industry cluster of Jalandhar is a classic example of a transplanted cluster, where a major segment of an existing cluster shifted lock stock and barrel (here the entrepreneurs, the workers and even the suppliers) to a new location due to some extraneous reasons (here political). The origin of the sports goods industry in India can be traced back to Sialkot (Now in Pakistan), which was the sports goods production centre during the pre-partition days. The birth of the modern sports goods manufacturing industry can be traced back to the turn of this century in the North-West region of pre-1947 India. The industry had to wait for nearly half a century after the birth of railways as modern sports became known, even to the Indian elite, only after the British influence on Indian Society increased.

History

Cricket, tennis, hockey and football were the games which were introduced by the Englishmen in the army. With the increase in British presence, the demand for the sporting hardware also increased. The elite and then the middle class Indians subsequently followed suite. Those were the days when the import of goods from England took weeks and the imported sports goods were out of reach of the average Indian as the cost of transportation was very high.

Sialkot (now in Pakistan) was found to be the most suitable place as it was located right in the center of Punjab, and also Uttar Pradesh (U.P) was not far away. It was also suited to the sports industry because of its situation in the foothills that was the best place to grow trees needed for making cricket bats and hockey sticks. The place also had skilled craftsmen, who could be trained for manufacturing these items. It started off with a British colonel suggesting Gainsa Singh Oberoi, a local wood dealer, that he should manufacture tennis racquets out of mulberry, then used only as a domestic fuel. This was how the first factory- Oberoi Limited – was set up in 1888 in Sialkot. It was India's debut in hockey in the 1928 Amsterdam Olympics that gave the industry its high boost. Sialkot started making hockey sticks as well as footballs and the industry flourished until the partition in 1947.

With the division of the nation, entrepreneurs belonging to one community decided to shift from Sialkot (which became a part of Pakistan) to India. The workers of the Sialkot industry belonging to the same community also migrated along with the entrepreneurs. Initially, the migrants settled in Batala in Indian part of Punjab, which was nearest to Sialkot and close to the hills, where the wood needed for sports items could be grown. Subsequently, as per the resettlement plan of the Government, the entrepreneurs and their workers settled in Jalandhar. The city was found suitable for the industry, as its location near the foothills of the Himalayas assured a regular supply of coniferous wood and existence of a traditional leather market, which again assured regular supply of leather, the two major raw materials for the Industry at that time. It goes to the credit of a handful of entrepreneurs to build the industry from scratch and find avenues for marketing their products. A section of the industry settled in Meerut in U.P, where also the wood and leather were available in plenty. The added advantage was proximity of Meerut to Delhi, which emerged as a large market for sports goods.

A new home

Jalandhar is an important city of Punjab located in the Doaba region (between the two rivers, Satluj and Beas). Along with its twin town of Jalandhar Cantonment, it is strategically located between the two important industrial cities of Ludhiana (70 Kms) and Amritsar (60 Kms). It serves as a location of two other important industry clusters i.e. the hand tools and the leather. There are also a good number of units making rubber based items like 'Hawai Chappals' etc. The strong export base of Ludhiana as well as continuous migration of a large number of local youth to the developed countries

Environment

surely provided an advantage for the growth of exports for the sports goods industry. The strong built of natives supported by a robust agriculture and agro-based productions led to a good affinity to sports. Location of the headquarters of armed and para military forces in the region and good support by some local large companies and also by the State Government provided the right environment for developing interest of the local population in sports. These naturally helped in the development of a thriving local market for sports goods.

The sports goods industry is located traditionally in two localities in the central part of the town, Basti Nau and Basti Sheikh. With growth, the industry also spread to adjoining areas of Basti Daneshmandan, Nakodar Road etc. The job workers of the industry, who are a crucial elements of the production system and whose predecessors migrated with the entrepreneurs from Sialkot are settled in Bhargav Camp and Basti Daneshmandan, adjacent to the above areas. Entrepreneurs, who had set up modern units with mechanized production systems, subsequently shifted to the industrial area, fringe areas located on the nearby highways and the Surgical and Sports Goods Complex. However, the network of the traditional business process is so strong that even these units have their offices or some production facilities in Basti Nau and Basti Sheikh, the traditional locations.

Geography

The case of the Sports and Surgical Goods Complex may be a classic example of the strong gravitation pull of the traditional SME clusters. Set up by the Government of Punjab in the seventies, the heydays of industrial growth in Punjab, the industrial estate was expected to serve the need for expansion of the Sports Goods industry and to provide basic infrastructure for shifting of the industry from the unplanned locations within the town.

The Gravity of Tradition

While the units that were growth oriented and were larger among the local ones, planned to move to the new location, the universe of smaller and micro enterprises could not arrange or risk the funds needed for shifting and thus shied away. Even the pioneers of the complex, very soon found the distance from the traditional locations (about 10 Kms) as a major hurdle for smooth production, which needed intense transactions with the job workers, sub contractors and traders. Today the complex houses about a dozen larger mechanized sports goods units, with the rest of the area occupied by other industries. These units justify their location to the need of larger areas for growth, lesser dependence on the traditional business process and development of efficient systems to transact with the job workers. In fact, most of these units are manufacturers of non traditional items like moulded plastic, rubber goods, protective equipments and sports shoes, which need little of the traditional skills and materials. But in spite of all these they have some presence in the traditional locations to liaise with the cluster players.

The exact number of firms in the Jalandhar sports goods cluster, as in the case of most of the traditional clusters, is difficult to enumerate. The official registrar of industrial firms, the District

Size, investment & production

Industries Centre (under the Directorate of Industries of the State Government), has 1235 firms registered as Small Scale Industries as on 31st March 2002. The details of categories, investment in plant and machinery, production and employment, as per the DIC records are given in the table below.

STATISTICS ON THE SPORTS GOODS INDUSTRY OF JALANDHAR

(As on 31ST March, 2002)

S. no.	Name of the Industry	NIC code	Number of units			Employment (No)		
			Urban	Rural	Total	Urban	Rural	Total
1.	Sports Goods	3851	554	141	695	3567	798	4365
2.	Shuttle Cock	3851	122	27	149	910	250	1160
3.	Football	2909	304	70	374	2645	532	3177
4.	Leather Sports Balls	2939	17	0	17	80	0	80
5.	TOTAL	-	997	238	1235	7202	1580	8782

Name of the Industry	Investment (in million Rupees)			Production (in millions Rupees)		
	Urban	Rural	Total	Urban	Rural	Total
Sports Goods	70.5	6.1	76.6	1876.6	65.5	1942.1
Shuttle Cock	1.2	0.3	1.5	91.0	31.0	122.0
Football	6.0	7.2	13.2	321.5	51.0	372.5
Leather Sports Balls	4.3	0	4.3	6.5	0	6.5
TOTAL		13.6	95.6	2295.6	147.5	2443.1

(Source: District Industries Centre, Jalandhar)

But the actual number of firms may be quite different as a large number of micro-enterprises and sub contractors remain unregistered due to their inability to complete the formalities and due to the fear of getting caught in the Tax net. On the other hand, many larger firms get registered as multiple SS-units to avail the various fiscal benefits. Again the household job workers for the industry, like the football stitchers, net weavers and racquet gutters, remain unrecorded even though they are an important segment of the cluster. The number of such households may be nearly 4000 as 3000 football stitching households have already been identified. The traders, an important actor of the cluster also remain non-enumerated.

Same may be said about the investment in fixed capital in the cluster. As most of the machines are fabricated locally or by small machine manufacturers, their value is difficult to estimate. Again under valuation of the plant and machinery, particularly by the larger units to remain within the definition of the Small Scale Industries and avail the attendant benefits are quite common. In case of the Jalandhar cluster, some over-valuation of the fixed capital by the smaller units cannot be ruled out as this help in getting higher working capital limits from the banks.

Getting a reliable estimate of the total production in the cluster is also quite difficult. Even the veterans of the industry do not like to hazard any guess. The figures mentioned in the DIC data are those declared by the registered units and the actual figures must be much more than the reported Rs.2443 million. From the market analysis, as given in a subsequent chapter, the production of the cluster may be estimated around Rs. 4000 million including the production of a large scale unit located in the cluster.

2. PRODUCTS & MANUFACTURING PROCESS

Sports Goods is an umbrella term which includes any item used for sports and leisure activities. As mentioned by an industry veteran, from walking sticks to sophisticated aerobatic aircrafts, every thing come under the category of 'Sports Goods'. This is because walking too is a recognized sport like aerobatics. A reputed British directory mentioned about more than 1000 items as sports goods and the harmonized code of the Ministry of Commerce, Government of India, included more than 200 items of sports goods. The traditional products of sports goods industry of Jalandhar can be classified into the following categories on the basis of the major raw materials:

- Wood : Hockey Sticks, Cricket Bats and Cricket Wickets, Carom Boards
- Synthetic fabrics : Volleyball, Football and Covers, Rugby Balls and all types of protective equipment,
- Leather : Cricket and Hockey Balls, Boxing Gloves and other Soft Leather goods.
- Rubber : Bladders and Tennis Balls Basket Ball and other Inflated Covers.
- Metal : Badminton & Tennis Rackets, Fitness equipments, Weight Lifting equipments, Trophies, Medals
- Cotton : Sports Nets, Sports Hosiery and other sports wear.
- Feather : Shuttle Cocks.

With diversification and expansion of the product range during the last few decades and use of synthetic materials, it would be appropriate to classify the products in the following sub sectors based upon product differentiation:

A. Inflatable Balls

- | | |
|-----------------------|-----------------------------|
| 1. Footballs | 7. Tennis balls |
| 2. Soft leather goods | 8. Rugby balls |
| 3. Bladders | 9. Hand balls |
| 4. Water Polo balls | 10. Punch balls |
| 5. Base balls | 11. Golf and Billiard balls |
| 6. Volley Balls | 12. Net balls |

B. Sports Equipment

- | | |
|---------------------------------------|-------------------------------------|
| 1. Cricket equipment | 11. Metal Trophies and medals |
| 2. Hockey equipment | 12. Lawn and Table Tennis equipment |
| 3. Badminton, Tennis & Squash Rackets | 13. Rolling skates |
| 4. Children's playing games and toys | 14. Skipping ropes |
| 5. Shuttle cocks | 15. Weight lifting equipment |
| 6. Exercise and Gymnastic equipments | 16. Health & Fitness equipment |
| 7. Sports nets | 17. Club equipment |
| 8. Carrom boards | 18. Playground equipment |
| 9. Chessman and Chess boards | |
| 10. Athletic equipment | |

C. Sports Wears

1. Shirts, trousers, track suits
2. Ties, bags and badges
3. Sports shoes

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D. Sports Protective Gears

1. Protective equipment Arm & Leg guards, Head guard, Chest guard
2. Shin Guard
3. Helmets
4. Hand gloves
5. Boxing gloves and boots

In terms of value, the most important product of the cluster are Inflatable Balls that probably have nearly 50% share of the total production. Next important items are Cricket bats, Cricket equipments, Badminton racquets, Hockey sticks etc. The products in the last two categories above, which are not considered as basic sports goods items, are showing the highest growth potential, and major diversifications and new investments in the Jalandhar sports goods cluster are taking place in these areas.

MANUFACTURING – PROCESS, TECHNOLOGY & INPUTS

Skill based production

The process of manufacturing in Jalandhar is still predominantly manual and highly skill based. The importance of manual-skills in the Industry could be realized from the fact that all of the sub-contractors, most of the micro entrepreneurs and many of the owners of the larger units are themselves highly skilled people and thus personally produce/supervise the production process to maintain product quality. For example, owner of one of the reputed manufacturer of badminton shuttle cocks, personally inspects and weighs each of the shuttle cock made by the unit. Similar cases may be found in the units making Cricket bats, Hockey Sticks etc. The reason for this is the minimal use of machines by the Industry. In fact, except common machines like Band saws, Circular saws for wood working and Power presses for cutting punching etc, other machines are rarely used by the firms in the cluster.

The notable exceptions to the above are the rubber and plastic goods manufacturers. The units producing moulded items like Basket balls, Tennis balls, Shin guards, Plastic toy items etc. use automatic and semi-automatic moulding machines for rubber items, and plastic injection machines for plastic items. As mentioned earlier, these firms are moving out from the core cluster locations as they have little commonality with the traditional business operations.

An interesting feature is that in the traditional items, the age-old manufacturing process is so efficient and cost effective that they still overrule the machines. For example, some of the leading producers tried with imported stitching machines for footballs but have found the hand stitching process not only cost effective but also of better quality. Similarly, firms making cricket bats are aware about availability of automatic bat making machines in advanced countries, but are not convinced about the efficiency and effectiveness of such machines. The risk involved with the considerable investment in such machines may be another dithering factor but surely not a controlling issue.

The modernization in the manufacturing process has come with innovation in designs and use of new materials. For example, the advent of the rubber moulded inflatable balls has made the process fully mechanized and made the traditional skills redundant. A lesser example is the designing of metal racquets for Badminton, Squash, Tennis etc., which has called for the use of

Modernisation with new designs

drilling jigs, powder coating, stove enamelling etc. A table on the change in the traditional manufacturing processes with the change in designs and material for some important products of the Jalandhar cluster is given below:

Name of Item	Prevalent structural Raw Material	Current manufacturing Process	State of the Art Material (New material)	Relevant Technology	Properties
Badminton, Tennis and Squash Rackets	Aluminium Pipe,	Drawing of the pipe, Drilling of gutting holes, bending to shape, joining of ends, fixing of handle, painting, labeling, gutting	Modular Graphite Fiber composite	Moulding of the complete frame in automatic machines.	High Equilibrium, High Strength To Weight Ratio
Golf & Skiing Equipment	Wood And Steel	Bending, forming ,machining, Heat treatment, grinding	Titanium Boron & Titanium Graphite	Special forming techniques, powder Metallurgy, sintering in environment controlled furnaces	Improved Fatigue, Strength
Hockey Sticks	Mulberry Wood & Cane	Boiling of the wood, bending for forming the blade, hand forming of the handle, assembly of the stick, finishing etc.	Graphite fibre reinforced composite	Moulding of the complete Stick in automatic machines	Durability Light weight, rigidity
Shuttle Cocks	Cork Bottoms & Feather	Cleaning, cutting and sorting of feather. Shaping of the cork, drilling of holes, fixing of feathers etc.	Nylon	Machine moulding of the complete Shuttle cock	High Durability, accurate balance and flight
Core of Tennis Balls	Natural Rubber	Mixing of the rubber, molding of the halves, joining of the Halves	Butyl Rubber, Nylon	Moulding of the integral core by blow moulding	Low Air Permeability, Low Loss Of Pressure
Fitness Equipment	Heavy Gauge Steel Square Tubes & Pipes	Drawing, bending, welding of pipes, machining of fittings, assembly, painting etc	Ultra-Light And Precision Aluminium	Assembly of special sections, powder coating	Durable & Ultra-Light In Weight
Cricket Ball cores	Cork, wool etc.	Forming of the core halves, fixing of the two halves , hand winding of the wool cover, long drying in the open	Synthetic resins	Moulding of the complete ready to use core	High Durability, reduction of the processing time
Play Ground Posts & Boards.	Hardwood & Steel	Cutting, finishing of the board, bending, welding of the steel post, assembly, painting etc.	Fibre Glass	Moulding of the sections, assembly	TransparencyDurability
Roller Skates.	Metal sheet, plastic moulded wheels	Fabrication of the body, fixing of wheels ,strapping etc	Fibre Glass/graphite composites	Machine muolding of the body and the wheels, assembly	Light weight, effortless movement& Durability

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The state of the art material is given in the last column, which when adopted by the industry will bring another radical change in the technology scenario and also in the business process of the cluster, affecting all cluster players.

Another important aspect of the technology of the cluster is the innovation in the processes. Whenever some new design or material came in vogue, the cluster based firms tried to adopt the same with minimum change in the existing process or equipment. One example is that of the Hockey sticks. With the change in the playing techniques and use of artificial grounds like

**Process
innovations**

Astro turfs, stronger and lighter sticks were needed and thus graphite moulded sticks were introduced in the international markets. These new sticks were costlier than the conventional wooden sticks that were made of mulberry and were beyond the reach of an average Indian player. Also the new technology needed huge investments in plant and machinery, again beyond the capacity of the traditional manufacturers, therefore a judicious combination of the two was made. Instead of solid wood, the blade of the stick was made from a sandwich of plywood and wood to make it light and also fit for the Astro turf. To make the stick stronger, graphite rods were used in the handle in place of cane, the traditional material. The resultant product was value for money for a typical Indian player and still successful in competing with the composite sticks.

Similar adaptation is found in the innovation of other traditional items like racquets and shuttlecocks. With the increasing popularity of the metal racquets over the wooden ones, the cluster based units adopted the metal fabrication technology with minimum mechanization and use of jigs and fixtures. As the aluminum section of required shape and size was not easily available so common domestic curtain rods were used to shape in the locally fabricated draw-benches. As proper finishing was essential for market acceptance, ancillaries were set up for powder coating of the racquets. Subsequently, when attractively painted racquets appeared in the market, stove enamelling units were also set up.

The history of process innovation for shuttle cocks is even more interesting. With the globalisation of the economy and the lowering of tariff barriers under the WTO regime, the cluster faced stiff competition from shuttle cocks imported from China that outdid the local product both in quality and price. Undeterred from the threat, the leading manufacturers decided to make a trip to China to understand their manufacturing process. They found that the raw materials available in China were superior and cost effective and their production methods were also very efficient. However, the final assembly of the materials to make the shuttle cock was not foolproof and could not produce uniform quality. The entrepreneurs decided to import the materials from China in the pre-assembly condition and use their skilled labour for manual assembly of the shuttle cocks. The resultant products were of better quality and overcame competition at least in the higher end market. But the industry is now facing a new competition from the imported synthetic moulded shuttle cocks.

The adaptability of the cluster based entrepreneurs and their machine fabricators have made manufacturing of advanced items like moulded inflatable balls and injection moulded items like protective equipments etc, viable at a fraction of the investment and production capacity of their counterparts in the advanced country. Naturally, these give the cluster players an added cost advantage and better production flexibility over global competitors. Almost all machines are locally fabricated copies of machines of reputed companies. Ludhiana, which is known as a repository of such fabricators is only an hour away from Jalandhar. The entrepreneurs are using the skills of the die-makers to finish moulds that otherwise needed CNC machine tools costing tens of million rupees.

The above examples show that the cluster is a thriving and a dynamic one as far as the manufacturing techniques are concerned. But it does not mean that the business process is efficient enough to meet all technology needs. There are serious gaps in the technology required for making competitive products both for the domestic as well as the export markets. The following table lists the identified technology gaps for some of the important products of the cluster.

Technology gaps

Product	Technology Gaps	Advantage
Footballs and other types of stitched inflatable balls	1. Simultaneous cutting of panels from a sheet 2. Fixtures for easier and uniform stitching	1. Better shape, less wastage 2. Uniform quality
Cricket Bats	1. Proper seasoning of the wood 2. Machine cutting of dovetails 3. Sandwich/ synthetic handles 4. Hydraulic pressing of the wood	1. Uniform quality 2. Productivity 3. Maneuverability 4. Better strength
Hockey sticks	1. Machine finishing of blades 2. Synthetic handles	1. Productivity 2. Maneuverability
Racquets	1. Mechanized drilling and forming 2. Improved finishing and labelling	1. Productivity 2. Acceptability
Cricket Balls	1. Stronger single piece cores 2. Mechanized stitching	1. Longer life 2. – do -
Moulded Items	1. Accurate moulds 2. Better control of the process	1. Acceptability 2. Uniform quality

It is important to address the technology gaps mentioned above for ensuring the survival of the respective products, which in turn are the staple items of the cluster. Again proven technologies are available for the above in some part of the world, about which at least the leading units are well aware of. The real problem for the technology up-gradation of the cluster is that the entrepreneurs still keep their technology as a closely guarded secret and do not want to discuss the same with anyone. The absence of the exchange of information amongst the cluster players is the main cause for the delay in technology up-gradation. Cases of both successes and failures in process innovation are kept as secrets so that they do not create the desired demonstration effect among the other units.

Quality Assurance

Quality Assurance and product testing are the other weak areas of the manufacturing process. Testing of the products are almost absent, more so due to the non-existence of Standard Specifications for most of the items and confidence of the user on his own assessment. Actually, almost all sports persons of some standing have their own idea about the sports equipments. It has been learnt that some cricket players of international standing have their own specifications about their bats. Of course the international controlling bodies of each sport has its own specifications on the dimensions, weight and in some cases on the material of construction of the equipments to be used in the respective game, but for the functional test, the reliance is more on the field trials.

Noted exceptions are Footballs. FIFA, the international body for the game has drawn out detail specifications for the balls to be used in the tournaments and it also certifies manufacturers as producers of balls to FIFA standards. Even today, only a few firms of Jalandhar have in-house facility for testing of footballs as per the FIFA standards and there is no Test House to certify the products as per the standards, though Footballs worth of Rs.600 million are exported from Jalandhar every year. That the footballs supplied by the cluster are not found suitable for tournaments by the international bodies and are mostly used for recreational games and 'child's play', is a different issue.

Need of Common Testing Facility

It has been learnt that firms, who want to get their footballs tested as per the FIFA standards are getting it done from overseas laboratories at huge costs. Keeping in view the testing needs of the sport goods industry, the State Trading Corporation (STC), a trading house under the Government of India, had set up a Test House about a decade back in Jalandhar but the facilities remain unutilized till date. While the Industry complains that the required expert manpower were never posted at the Test House, the local STC management opine that the industry was never interested to utilize the facilities as they knew that most of the products will not stand to the specified tests. The current situation is that the testing equipments are nestling cozily within their covers in the spacious Test House hall of the local STC office. A Common Testing Facility for the industry was also set up by the Punjab Government named as the Quality Marking Centre for Sports Goods. While it has provided with some testing services to the industry in the past, today it is lying in a dilapidated condition. One of the reason for this may be the obsolete facilities at the center.

CE certification for protective gears

Sports Protective Equipments are the second category of items, where common testing facilities are immediately required. These items have a good share in the exports from the industry and what is more important, is that it is showing a healthy growth rate against the stagnant overall performance of the sport goods sector. While the Jalandhar cluster has quite a few units specializing in various protective gears, particularly Cricket and Hockey protective items and Shin guards for football players, there is no common testing facility. The immediate threat is that the Governments of the advanced countries and particularly the European Union, which is one of the most important importer of sports items, is imposing compulsory testing clause. Since 1994, the European Countries have imposed legislations on personal protective equipments, which has affected the exports of the small Indian manufacturers. For example, the protective equipments such as Shin Guards have to pass stringent quality tests and require CE (Conformity European) certification. Without CE marking, Indian products will find it difficult to enter and/or sustain their markets in the EU. Such certification facilities were not available in India until recently and the equipment had to be sent in six sets to Europe. The testing of each set costs about \$500. However, the Export Import Bank of India (EXIM Bank) which provides grant/finance for product/process certifications including CE marking is providing grant up to 50% of the cost incurred (75% for SSI units) for certification.

Testing of raw materials

Besides, testing of the finished products, the testing of raw materials and bought-out components is an important but hidden need of the Industry. The manufacturers of footballs and other types of stitched inflatable balls rely on their personal 'feel' to source their main raw materials i.e. the PU/PVC sheets and the backing fabric from various suppliers (both domestic and foreign). So it is not surprising that often an entire lot of finished footballs is rejected due to the poor quality raw materials. The irony of the situation is that at least two local institutions, the regional center of Central Leather Research Institute and the Textiles Department of Regional Engineering College, have adequate facilities for the testing of fabric, leather and other cotton/synthetic fibre based items used in footballs and other types of balls including Cricket and Hockey Balls.

Need for Standards

Apart from the lack of awareness among a majority of the cluster based units about the facilities available, the other problem is that no standard specifications are available for the materials to be used in sports goods. As mentioned in an earlier paragraph, for most of the sports goods no technical standards have been brought out by the concerned international bodies. Though FIFA, the international body for football, has

issued elaborate standards for the functional tests of footballs, it is silent on the specifications on the raw aspect of materials and consumables. So in order to assure quality of the incoming materials, internal specifications have to be developed for the cluster. Exactly the same thing has been done by units of the cluster, who obtained ISO 9000 certifications. Testing samples of such lots of fabrics and leathers, which gave the final product an acceptable functional performance, to the standard tests used for testing of leather for footwear, they have prepared their acceptance specifications for the incoming materials. Needless to mention, they have saved a lot of money by avoiding use of sub-standard material, which will ultimately cause rejection of the finished product. What is needed here is development of such specifications for the whole cluster by some common facility and demonstration to the cluster based firms of their utility.

Status of raw materials

The raw materials used by the sports goods industry are as diverse as the products of the industry. There is an adage in army that 'Ordnance' is everything from pin to plane. The same thing could be said about the materials for the sport goods industry. In this chapter on the Products of

the Industry, the product raw materials have been classified into fewer groups for brevity. The actual situation is quite different. For example at least six types of natural and synthetic fabrics are used in the manufacturing of footballs and the leather used for cricket balls is quite different from the leather used in boxing gloves. Again, threads are one of the most common raw material for sports goods but remain invisible. Even a reputed cluster based supplier could not count the types and grades of threads used by the industry. An illustrative list of raw materials used in the manufacturing of important products of the Jalandhar cluster are given in the following table –

Sr. No.	Item	Raw Material
1	Cricket Bat	English Willow, Kashmir Willow, Cane, Glue, Rubber, Insulation, Rubber Grips, Thread, Cotton Tapes, Stamping Foil, and Labels.
2	Hockey Sticks	Mulberry, Cane, Tape And Towel, Glue, Gum Copal, Thread And Labels,
3	Wooden Skii	Hickory and Maple Wood, Glues, PVC Sheets And Polyethylene, Steel Strips and Protective Lacquers and Labels.
4	Soft Leather Goods	Cowhide, Sheep Skin, White Canvas, Plastic Cloth, Cotton, Rubber, Spikes, Finger Tips, Thread, Cane and Buckles and Labels.
5	Inflatable Ball	PU/PVC cloth, Cotton and Polyester fabrics, Rubber, Threads, Paints and Chemicals,
6	Solid Leather Balls (like Cricket balls, Hockey balls)	Leather, Corkwood, Kapok, Rubber, Wool Worsted, Nylon, Cotton Yarn, Stamping Foil, Varnish and Enamels.
7	Wooden Rackets	Wood (Ash, Hickory, Sycamore, Mahogany), Nylon Gut, Natural Gut, Glues, Lacquers, Leather, Textile and Labels.
8	Aluminium Rackets	Aluminium Pipe, Gut And Powder For Coating, Paint, Labels
9	Sports Hosiery	Wool, Cotton, Staple, Rubber Thread, Embellishment and Label, Acrylic Cloth, Terrycot, Polyester Fibre.
10	Shuttle Cocks	Cork Bottom, Label, Duck and Hen Feathers.
11	Table Tennis Table	Sheesham Wood and Steel Pipes.
12	Tennis Ball And Billiard Ball	Celluloid or Similar Plastic Material.
13	Fitness Equipment	Cast Iron, Steel Pipes, Tubes, Leather and Cloth for Covering.
14	Gymnastic Equipment	Wood and Steel Pipes and Pig Iron.
15	Polo Balls	Bamboo.

16	Golf Equipment	Wood and Steel
17	Play-Ground Equipment	Steel Pipes, Plastic and Acrylic Steel for Boards.
18	Helmets	ABS, Nylon 6.
19	Skipping Ropes	Leather, Cotton, Rubber.
20	Athletic Equipment	Aluminium , Brass, Steel and PU Leather.
21	Bladders	Natural Rubbers and Stabilizers
22	Chess Board/Men	Wood, PVC and Ply
23	Carrom Board And Strikers	Wood, PVC and Ply
24	Protective Equipment	Leather, Rubber and Latex Foam,
25	Dumbbells	Pig Iron
26	Chest Expander	Wood Handle, Soft-steel Wire, Hard Wire.
27	Sports Nets	Cotton and Nylon
28	Weight-Lifting Equipments	Steel Rod and Steel Weight.
29	Sports Shoes	Upper Leather, Insole Leather, Rubber Soles, Foam and Adhesives

While a detail description of only the major raw materials used by the industry with their availability, quality and substitute status, will itself be a separate volume, the status of the few strategic materials for the Jalandhar cluster is as follows -

A large number of local units are using locally tanned leather. Buffalo and cow leather have broken grains leading to seepage and loss of shape of the product. This leather is mostly sold in the domestic market. The leather obtained from dead corpse is generally of an inferior quality to the leather obtained from slaughter animals. For good quality leather balls, full chrome cow leather is being used by the manufacturers. A number of local factories (Jalandhar is an important cluster of leather industries) are engaged in making this type of leather.

Leather

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Synthetic leathers are now used for making of stitched inflatable balls like footballs, volleyballs, rugby balls etc., completely replacing natural leather due to their better water resistant properties and cost competitiveness. While the PVC is used for the cheaper varieties of balls, the PU is used as the cover material for the superior balls due to its excellent functional characteristics. While PVC sheets of acceptable qualities are available indigenously, only imported PU sheets are used by the industry as material of required quality are not available in the domestic market. Realising the importance of PU leather for boosting India's export of inflatable balls, the Government of India has allowed import of PU leather under the OGL. However the user industries, particularly the smaller ones complain about non-availability of the material and also high prices charged by the suppliers partly due to the high tariff but mainly for exploiting the shortage situation. Before liberalization of the economy, when the material was canalized, the local branch of the State Trading Corporation in their efforts for the growth of the industry, maintained a stock of PU sheets for ready supply to the user industries but that has been discontinued long back. Bulk buying/import of the material will surely ensure lower price and ready availability and for this a consortia approach is needed to be encouraged among the cluster based firms.

PU and PVC synthetic leathers

A variety of wood starting from ordinary Mango to exotic Willows, Ash and Hickory are used in the cluster. Mango, Sheesham & Mulberry wood is locally available. English willow, ash wood, beech wood is also imported under the OGL. Kashmir willow is also procured by all possible means even after imposing ban on its export from the State of Jammu and Kashmir. The user firms opine that the ban on the export of Kashmir willow, which is the best

Wood

indigenously available material for making cricket bats should be lifted by the Jammu and Kashmir State as it is not serving any purpose but encouraging smuggling of the wood out of the state and increasing the price.

The import of corkwood for use of cricket and hockey balls is canalized through the STC. Though the this raw material is required in very small quantities, yet the industry feels that manufacturing units should be allowed to import corkwood under the OGL. The PU cork bottom for shuttle corks is also locally available. The best quality of cane as required for the handles of Hockey Sticks that comes from Andaman and Nicobar. The administration has banned the export of cane from the territory. In view of this, the industry is facing an acute shortage of cane and has to meet their requirement through unauthentic sources and that too after facing much difficulty.

**Cork Wood
and Cane**

Feathers

Feathers are important raw materials for shuttle corks. Goose feathers are generally imported but are also available in India. Besides, hen feathers are also locally available. Now cut and processed feathers are also being imported from China.

**Iron and
Steel**

Iron and steel includes graded cast iron, spring steels, other precision square steel, round steel tubes and pipes etc. There is no problem in procurement and supply of all these materials locally.

Cloth

The industry requires all types of fabrics i.e. cotton, acrylic, terrycloth, polyester etc. The maximum use being as backing materials for football covers. These are available indigenously and there are sufficient local suppliers. However, leather cloth and wind-sheet cloth is allowed to be imported under the OGL also.

**Nylon
Gut**

Thick and good quality nylon gut thread, tapes are locally available. Hisheep gut is also locally available. However, multi-coloured nylon gut is imported from Japan. On the whole, there is no problem in obtaining this material.

**Rubber and
Rubber Chemicals**

Latex rubber and butyl rubber are available locally. Rubber is also supplied by the Rubber board, Kottayam (Kerala) which has one depot at Jalandhar for supply of rubber to the industrial units of Punjab.

**Cotton Material
and Thread**

It is locally available in abundance and of required quality.

Aluminium

Aluminum sections required for making Racquets are not available locally. Cluster based units informed that M/s Jindal Aluminium Company Limited, Bangalore is the only company in India manufacturing special aluminium pipes for racquets. But at present, this raw material remains in short supply. Ultra-light precision aluminium pipes are required for high quality. Racquets are mostly imported as these are not indigenously available.

Brass and Copper

The required quality of these raw materials is locally available and in abundance.

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New materials

Raw material substitutes such as carbon fibre, carbon graphite, fibre glass, modular graphite, titanium boron and titanium graphite are not available in India easily. They are being entirely imported.

Other materials

Sports goods components and accessories are available locally as per quality requirement. The cheap quality is available locally. The turf of good quality and synthetic turf are allowed to be imported under the OGL. Synthetic resins are indigenously available as well as imported materials are also available in the market.

Labels and Packing Materials

Labels are very important marketing tools. Though they have no functional use, products with attractive labels improve the market value significantly. Though every kind of packing material and labels are available locally, much improvement in their design, material and transfer technique is needed. For example, the manufacturers of badminton racquets opine that though the quality of the racquets made in the cluster is comparable to those imported from China, the latter have a higher demand due to their superior finish and attractive labels.

Dialogue with suppliers

From the above, it is also evident that there is very little interaction of the user industries with the suppliers of raw materials. For even high volume items like PU leather used in footballs, the indigenous producers have not shown any interest to produce the material of required quality, mainly due to their ignorance about the highly fragmented demand from the small and tiny units and the fear of unsure loyalty of the large units. Similar is the case for aluminium sections used in racquets. Due to non availability of the indigenous material, the sports goods units are forced to use imported materials and are incurring additional costs making them uncompetitive in domestic as well as export markets. At the same time, the possible indigenous producers of the materials are losing an important market for their product. A regular dialogue between the producers and users of the raw materials will surely help in understanding the requirements of the industry, both quality and quantity wise and development of the supply chain. The need for developing consortia for bulk purchase of the imported materials has already been discussed.

Sourcing of new materials

But the problems with the inputs do not end with what is mentioned above. New and exotic materials are replacing the traditional ones everyday. And equipments of these materials have high demand in developed countries, due to their excellent use value and in spite of their high cost, they have already made the traditional items redundant in the export markets. Materials like carbon/graphite, reinforced composites and metals like Titanium were developed for super sonic fighter jets and have superb weight to strength ratios. Dream materials for the engineering industry, they are commonly used in high quality hockey sticks, racquets and ski and skating equipments, as given in the Table above.

Kevlar, originally developed for Bullet-proof vests has also become a state-of-the-art material for sports goods. Needless to mention, they are being imported and as they have a high value component in the product, export of such items has been uncompetitive. Without sourcing such materials indigenously, it may be impossible to export them. Already countries like Taiwan and China are dominating the international markets for such high value products, relegating India to supply to the lowest of the markets for sports goods in the developed countries.

In this connection some anomalies in the EXIM policy are also cited. Cluster based firms mention about higher duties on the components of sports goods than on the finished products. This has made import of the finished products cheaper than the components and has thus discouraged their manufacturing. It has been reported that one of the largest manufacturer of Shuttle corks at Jalandhar has stopped production of items and has started importing products from China to market here. With the lowering of the tariff barriers under the WTO regime, more and more of such cases are expected to happen if some corrective actions are not taken. It has also been reported that under invoicing and smuggling of the items imported particularly from China is also causing unequal competition to the local Industry.

Policy matters

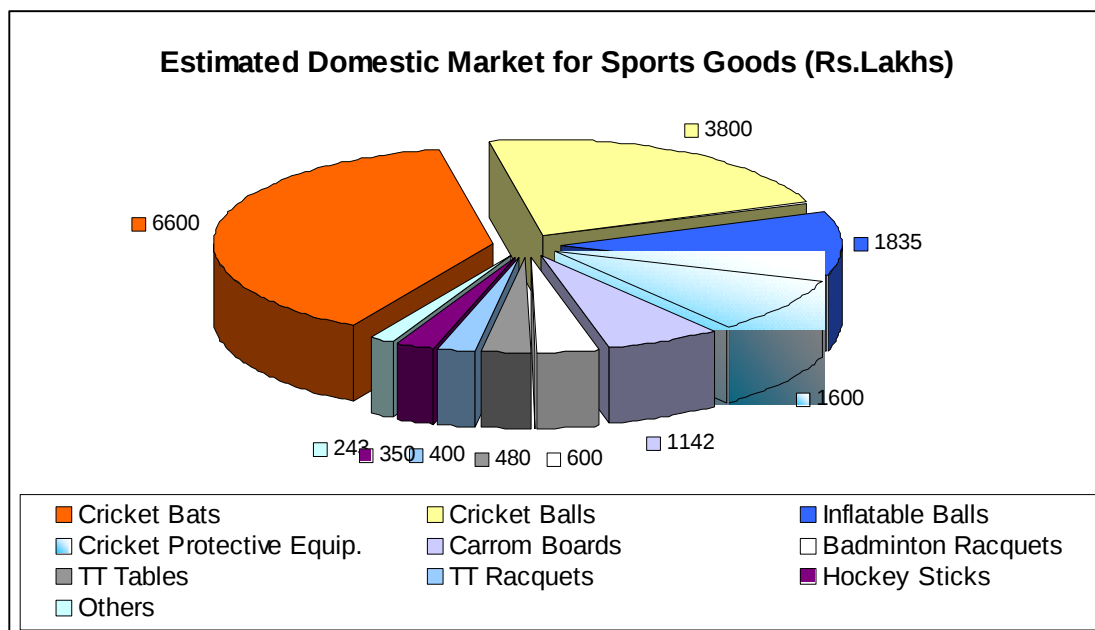
3. MARKET SCENARIO

Determination of the market size of Sports Goods is again not an easy task. The market for Sports Goods is distinctly divided into two segments, the domestic market and the export market. The product profiles and the suppliers for the two markets are widely different. A regular exporter from Jalandhar cluster has little interest in the domestic market, basically due to his pre-occupation with exports and even the important suppliers to the domestic market do not show much interest in direct exports basically due their product profile. The rigours of the export legalities and the delivery schedules also deter the suppliers to the domestic market as they are not equipped to deal with the legal niceties of Letter of Credit.

A clear divide of the Market

Stories are abound about firms who tried to dabble with the export market without proper legal backing and in the course incurred heavy losses. It is not the case that there is no bad customer or payment hold ups in the domestic markets but it is felt that the amount of risk is much less in the latter. It is also not the case that experienced exporters do not face payment risks. There is a recent case where a multinational company gave a huge order of a particular item to some leading sports goods exporter of the cluster and then slipped out without taking delivery or making payments by quoting fine prints in the Letter of Credit. The real situation is that the nature of the export market is such that only firms having a critical mass can survive the risks and also make handsome profits, kind of which are not available in the domestic market.

The domestic market for the sports goods is so fragmented that no one wants to make a guess about its size. The most reliable data is available from a Study of the EXIM Bank, which gave the figures for the domestic market for important categories of sport goods in 1997-98 as in the chart below:



The total domestic sports goods market was approximately around Rs.1705 millions. The items having the largest share in the market are cricket bats and balls, which included the cricket protective equipments constituting almost 70% of the domestic market. Not surprisingly, Cricket

The domestic market

has become the most favourite game in the country, relegating erstwhile popular games like footballs and hockey to a distant second and third positions. In fact promotion for all other games are mainly being done by the institution like Army, Paramilitary Forces and Government agencies like Sports Authority of India (SAI). The domestic market being highly price sensitive and also catering to the rural markets, which has emerged as a high growth sector for cricket, cheaper variety of items constitute major volumes.

Even the most knowledgeable cluster players could not guess the current domestic market for the sports goods, but the unanimous opinion is that the market like the export market is almost static and demands for some items like Cricket Equipments may have increased at the cost of items like footballs, racquets etc. Some of the players in the domestic market fear a reduction in the supply by the domestic industry during the last few years due to a considerable import of badminton racquets and shuttle corks from China and also preference of the high end market for the imported items. Again, interest to newer kind of games like bowling, pool etc. by the urban youth, equipments for which are mostly imported, has also affected the demands in domestic market. The Jalandhar cluster also suffered due to an increase in the demand for health and fitness equipments at the cost of traditional items, as the former is not a core competence area for the cluster.

However, in its characteristic style, the cluster has braced up to face the emerging challenges in the market. Taking the advantage of proximity to Ludhiana, the biggest cluster of cycle parts, quite a few entrepreneurs has started producing health and fitness equipments like joggers, cycles etc. Again utilizing the skills of the traditional leather cluster of Jalandhar, quite a few entrepreneurs have also started manufacturing sports shoes. Here, the knitwear cluster of Ludhiana has provided the logistical support for the diversification into sportswear like tracksuits etc. And today, the two last mentioned items in the past have the highest rate of growth and investments in the cluster.

Some reliable estimates of the export market are available from the Sport Goods Export Promotion Council of India, an autonomous body under the Ministry of Commerce, Government of India. The export figures for the last few years from India with a break up of the major items are given in the table below:

(Export figures in Million Rupees)

Item/Year	1997-98	98-99	99-00	00-01
Inflatable Balls	1152 (47.88)	1255 (50.66)	1022 (44.31)	1023 (41.58)
Bladders	47 (1.95)	48 (1.95)	62 (2.67)	40 (1.63)
Hockey Sticks	67 (2.77)	60 (2.44)	62 (2.7)	52 (2.1)
Protective equipment for Hockey	24 (0.98)	34 (1.39)	21 (0.92)	21 (0.87)
Cricket Bat	154 (6.38)	154 (5.73)	132 (5.73)	147 (5.73)
Cricket and Hockey Balls	71 (2.94)	68 (2.75)	68 (2.95)	62 (2.51)
Protective Equipments for Cricket	225 (5.96)	223 (8.98)	244 (10.56)	292 (11.90)

Indoor Games (including Carom and Chess)	104 (4.33)	84 (3.37)	78 (3.39)	75 (3.04)
Boxing Equipments	122 (5.06)	147 (5.92)	180 (7.82)	186 (7.52)
Fishing Equipment	125 (5.31)	100 (4.04)	94 (4.08)	90 (3.66)
Total	2407 (100)	2478 (100)	2307 (100)	2472 (100)

The figures in bracket indicate percentage of total export (Source – SGEPC)

It may be noted that the export figures are almost static for the major items of export along with the overall export figures. Accurate figures of export from the Jalandhar cluster are not available but it is estimated that about 60% of the all India exports are made from Jalandhar. Again the manufacturing strength of the cluster is in the area of inflatable balls, cricket bats and protective gears, which are the major export items. It is projected that the cluster has around 50% share in the export of these items with Meerut. The share of the major items in the export basket is also almost static, with Inflatable balls constituting almost 50% of the basket and all other items at a long distance. The only items that are showing a noticeable growth are Sportswear and Protective Equipments, however they are not considered as core sports items. Though the share of the Jalandhar cluster in the export of these items is not known and also these are not the traditional items of the cluster yet, these are surely upcoming products, keeping in view the new investments and diversifications being made in the cluster.

Export market

The distribution of the country wise market for the sports goods exported from the country are given in the table below:

Export figures are in Million US\$

Country/year	1999-2000	2000-2001	Percent change over last year	Share of total export (%)
United Kingdom	16.43	14.48	-11.89	26.75
United States	6.71	7.59	-13.11	14.03
Australia	8.29	7.4	-10.74	13.68
Germany	2.67	3.39	26.97	6.27
South Africa	2.81	2.30	-18.15	4.25
France	2.34	1.93	-17.52	3.57
Italy	1.46	1.64	12.33	3.02
Canada	1.09	1.62	48.62	2.99
Netherlands	1.55	1.44	-7.1	2.67
Poland	0.90	1.33	47.78	2.18
Paraguay	-	0.65	100	1.19
Iraq	-	0.6	100	1.1
Spain	0.74	0.46	-37.84	0.84
Belgium	0.26	0.44	69.23	0.82

Source – SGEPC

Country wise share

Again it may be observed that the country wise share is also near static with the UK as the largest market and, USA and Australia coming next. Block-wise the EU is the largest buyer. An area of concern is that the overall export is showing a downward trend in the above major markets. However, an upward trend in the export to discerning markets like Germany, Canada and Italy and penetration in some new countries in the developing world is a

silver lining for the industry. Though the trend shows all India figures, it may be well applicable to the exports from Jalandhar. Among the emerging markets, Africa and South America are important but both the markets suffer from risks of uncertainty and fraud. However, the leading exporter of the cluster think that these markets are good hopes.

The reason for the stagnant export lies in the narrow band of operation of the firms of Jalandhar, or for that matter by the Indian exporters of sports goods. Due to a slow or negligible transfer of advance technology, firms of the cluster could not produce sophisticated high value items, as described earlier. As a result, at the middle and the lower end, more and more markets are being gained by countries like China, Indonesia etc. due to their mass production capacities and cheap labour. An indulgent Government and freedom from regulations are quoted as other reasons for the success of the above countries. In fact, it is feared that these countries particularly China, is going to overcome the shortage of manual skill in the production with the use of machines and plastics. It has been reported that China has already developed machine stitched inflatable balls lowering its cost of production significantly and their onslaught in the market for Badminton Racquets has made the cluster based manufacturers defensive even in the domestic market.

While direct transfer of automatic production technology may not be useful for the cluster as mentioned in the chapter on technology, hybridization of the present skill based operations with the advanced technology, will surely improve product acceptance in the export market and also competitiveness in the domestic market. Comparison of the performance in the export market with Taiwan, which has a high share of the global market for sports goods may appear absurd and realistic comparison with China may not be possible due to unavailability of data. But next-

Benchmarking Pakistan

door neighbour, Pakistan can surely be benchmarked, more so because Jalandhar and Meerut, the two dominant clusters in the sports goods bear a legacy to Sialkot, the most important sports goods cluster of Pakistan. Despite the dominance of inflatable balls in the exports from

India, its share in the global market is not significant. Pakistan has the largest share with 75% of the market followed by China and Taiwan. India accounts for a minuscule 2.5% of the global market. When this is the position of our strong item in the global market, the situation regarding other items need not be elaborated. Given below is the comparative performance of two countries in the export of sports goods:

Country	India's export (unit value)	Pakistan's comparative export (unit value)
Germany	1	7.29
UK	1	1.17
France	1	10.96
Italy	1	5.07
Spain	1	13.43
Netherlands	1	8.11
Belgium	1	34.37
Austria	1	18.8

Sweden	1	12.95
Denmark	1	0.00
Finland	1	0.24
Ireland	1	1.13
Portugal	1	9
Greece	1	14.02
USA	1	6.54
Japan	1	8.17
Canada	1	0.08

As Inflatable balls are considered the core competence area of the Jalandhar cluster, the question of its lagging far behind Pakistan was posed to a number of cluster based firms (large, medium and small). The following reasons were cited for Pakistan's better performance:

1. The units there get regular supply of quality materials like PU.
2. The skills and productivity of the labour is better
3. Full support is provided by the Government

In fact, no other reasons could be cited for the production of an item, which basically involved cutting and manual stitching. But there must be some strength in the marketing techniques also.

The marketing structure of the Jalandhar cluster is as personalized as the production system. Both for the domestic and export markets, the cluster based firms rely on personal contacts and individual knowledge. For this reason, every entrepreneur big or small make regular trips to the target markets to collect orders and also to keep personal contact with the buyers. And the market related information are kept as top secrets. The marketing system of the Jalandhar cluster may be segmented into four categories; i) Over the counter sale; ii) marketing to the distant markets through personal visits; iii) marketing to the visiting buyers; iv) Supply to the Institutional buyers.

Marketing system

The core cluster location, Basti Nau has a big market for over the counter sale. Almost every cluster based firm has some presence in the market either through own shop/office or through dealers. While the large units having manufacturing units outside the main location, have offices or distributors in the cluster, the smaller cluster based units sell directly from the unit. Tiny skill based manufacturers, basically sub contractors sell through the larger units.

The unique feature of the cluster is that there are very few pure traders or pure manufacturers in the cluster. Every firm produces at least one item but sells all of them. Till a firm itself produces an item, it cannot compete with other manufacturers by procuring it from the market. And as orders for the sports goods always come in assortments so each firm has to supply, though it is impossible for them to produce all items, even the most important ones, due to the varied technology and skill requirements. So the universal motto of the cluster is 'make one and sell all'.

There are a few pure Traders in the market who basically sell those sports items that are not the core products of the cluster, for example Board Games and Table Tennis equipments, for which there is a local demand (for basket supply by the cluster based manufacturers) and there is some transactional leverage. The main buyers in over the counter market are local buyers or rather buyers from the northern India, both large consumers and traders. They come there to check the product quality and bargain for rates in a Bazaar environment. This segment has a significant share in the domestic market of the cluster.

Most of the out of station buyers, particularly from far away areas like Southern and North Eastern part of the country, deal on one to one basis. Most of the local firms, particularly the non-exporters, have their pocket clients, basically outstation dealers, who provide them with regular business. The local suppliers make regular visits to these buyers and their details are

**Personalised
marketing**

kept as closely guarded secrets. While the buyers are aware about the core competence areas of the suppliers, they give orders for basket of sports goods, which they need and the suppliers supply the mixed basket constituting their own product as well as the rest bought from the market.

So there is an enormous sub-contracting in the cluster. Again, most of the local firms specialize in marketing to a particular location and personally nurture that market through regular visits. Many of the local units have even opened retail outlets or marketing offices in their pocket markets, particularly in the southern part of the country. Again this segment has an important share in the domestic market of the cluster

Basically two groups of buyers, who come to the cluster market. A major part of the group comes from the Northern part of the country, for Bazaar-buying as described above. They are well aware about the market and source their product at the best bargain. The other group is generally from small outstation and far flung markets, which the local firms consider to be too

**The Sports
Bazar**

small to nurture by personal visits. Coming from the smaller markets with a small shopping list, they generally anchor to some known firms, again for a basket supply and also to get some credits. Though their purchases are not very significant, the linked local firm, consider them to be pocket markets

and closely guard them during their visits to the cluster to prevent market poaching by their competitors.

Another important segment of the domestic market of the clusters are the Institutional buyers. Armed Forces, Paramilitary Forces are bulk buyers of sports goods. At the Government of India level, the Sports Authority of India (SAI) is a major buyer. At the State Government level, the Sports Directorates are important buyers. While the segment is considered to be significant, it is

**Institutional
buyers**

considered to be beyond the average firms due to the size of the orders and the extent of follow ups needed to get the orders. Again many of the large manufacture exporters of the cluster, consider the market, though big but unattractive, due to the low profit margins and high transactional costs. It has been reported that a handful of firms from the cluster have specialized in the

market and have also blocked entry in the segment for other firms. Needless to mention they actually produce a fraction of the order received and source the rest from other cluster based firms, mainly the tiny and micro ones.

The export market of the cluster is again highly personalized, where the exporter personally keeps close contacts with the buying firms. For this purpose, regular visits are made by the Chief Executives of the exporting firms of the cluster, to the important importing countries.

**Export
marketing**

Again, many of the local exporters maintain offices in the important markets, particularly in the U.K and USA. As the details of the buyers are kept secretive

and the loyalty of the professional executives cannot be guaranteed, so even in the larger exporting firms the export related information are dealt by the entrepreneur's family members themselves. Even the foreign offices are run by some of the family members as there is no dearth of volunteers in this state of Non-resident Indians.

The size of the export market of the Jalandhar cluster could be guessed from the figures of the Sport Goods Export Promotion Council as mentioned in an earlier paragraph. Considering a 50% share in the export basket, the export from the cluster could be taken as Rs.1250 million out of the total reported export of Rs.2472 million from India. However, some exporters claim that export figures are double the amount as many exporters from the cluster are not members of SGEPC (already more than a hundred firms are) and so much of the exports is not reported. On the final analysis, it can be assumed that the export from the cluster hovers around Rs.2000 million and as reported earlier, with little overall growth during the last few years.

However the exports are not static as there are significant inter segment transfers. Already Sportswear has replaced Inflatable Balls as the leading item in the export of sports goods from the country. The amber light for the cluster is that the items that are showing a positive trend in exports are not the core competence areas for the cluster and if major restructuring of the production base is not carried out, Jalandhar may soon loose its position of being the highest exporter of sports goods in the country. As mentioned earlier, some initiation in this regard has been taken but the pace is not sufficient for the rapid change in the exports market.

A direct outcome of the personalized nature of marketing by the exporters, is the near absence of cooperation in marketing. Every exporter from the cluster considers the information about their clientele and their export prices as top secrets. Though they often travel in a group to a country or a fair yet there is no consortia approach and the price or product negotiations held with the buyers are not divulged to the group members, even when they are lodging or eating together. The advantage of these inter-differences goes to the buyer as agreed by some exporters. They bargain the prices to a rock bottom by taking an advantage of the absence of information exchange among the group members and the eagerness of all to accept the entire order (the supply of big order is not a problem due to the widespread outsourcing and sub contracting prevalent in the cluster). The situation is not unique in Indian context as in most of the traditional SME clusters, these kind of isolation and secrecy in marketing is maintained to somehow get orders in a highly competitive and stagnant market.

Lack of Cooperation

Absence of brand promotion

The fact is that this kind of approach is beating the Jalandhar cluster in the overall global market. Though the exporters from the cluster do not mention about a consortia approach by the exporters from China and Pakistan, they agree that the exporters from these countries do not easily reduce their prices while negotiating with the buyers and also successfully resist non tariff barriers from the importing countries. It appears that without some kind of consortia approach, such behaviours will not be forthcoming. Another weak point of the Jalandhar cluster is that almost no exporter sells in his/her own brand name. While the important players in the global market for sports goods like Adidas, Spalding, Nike, Puma etc. source their products from the Jalandhar cluster, the local industry have never tried to promote their brands, at least in the developed market. The result is that they are forced to supply at a near uneconomic rate with little concern for quality or reputation. This kind of sub contracting in the international market also keeps most of the cluster based firms insulated from the changes in the international business environment, like insistence on fair trade practices and quality certification by the importing countries as the buyers generally take care of these things.

Non - tariff barriers

First of all, such changes affected the cluster based exporters a decade back when implementation of Quality Systems were insisted by many buyers. The cluster players rose to the occasion, albeit late and slowly started implementing the Quality Systems. Today, quite a few local firms have ISO 9000 certification. The second hurdle came a few years back when major buyers threatened to stop import from India on the issue of use of child labour. The industry at Jalandhar again got together and floated an NGO called the Sports Goods Foundation of India (SGFI) with the support of ILO and the Government, to identify and eliminate child labour from the sports goods industry.

The positive efforts of the SGFI have been acknowledged at international platforms and the declaration of its members about non-use of child labour has been accepted with all seriousness. The above examples show that as characteristic to a dynamic cluster, Jalandhar too can rise to threats successfully, but as there is a lack of proactive action so the latter faces a jolt now and then that places it a few steps behind. Such kinds of attributes explain well the stagnancy of export from the cluster, which could easily be diagnosed to the absence of networking in the export market. The next barrier looming before the cluster is the insistence on following fair trade practices and complying with social norms provided by the suppliers of some advanced countries.

The personalised nature of marketing by the cluster based firms is also a result of the near absence of agents, market promoters and other middle men in the export market of the cluster. It appears that the exporters rely mainly on their prior knowledge of the market and the feedbacks that they receive from their own offices. It is not known if any market survey has been conducted at the cluster level, and as such exercises are beyond the capacity of an average individual exporter so it is highly improbable anyone would have done it. It is a different issue that there is not much need of such things when one is basically working as a sub contractor to a limited group of international buyers.

Absence of market Research

The markets are also not without threats. Firms from the dominant exporting countries like Taiwan have already fanned out to countries like Indonesia and Philippines, where the labour is cheap and abundant, to set up sports goods industry and their products will soon unleash a price war in the markets for the traditional export items of the Jalandhar cluster. If the industry wants to shed its image as a supplier of traditional items catering to non-professional lower-end of the market, then rigorous market surveys are needed to be carried out in the niche areas and emerging markets, and develop the relevant capacities. Engagement of marketing consultants, who would be afforded by networks/consortia will also help the exporters in planned market promotion. In the current environment of sub-contracting in the international market, common brand building appears to be a far cry but for maintaining unit value realization and market share, this is the only long run option.

SGEPC

The only support at the institutional level for the promotion of exports of sports goods comes from the SGEPC. Besides sponsoring market surveys from time to time, it also provides market information to its members through its newsletter. The problem is targeted at the entire sports goods industry in the country as they are not focused and do not have an in depth analysis of the specific product segments, which are of importance to the cluster based firms. SGEPC also sponsors participation of the industry in specialized fairs for sports goods like International Trade Fair for Sports Equipment and Fashion (ISPO) Munich and Super Show Fair at Las Vegas. The council also sponsors one man sales cum study teams to foreign markets and the facility was availed by about a dozen exporters from the Jalandhar cluster during 2000-2001.

4. OTHER IMPORTANT FACTORS:

Finance

One surprising aspect of the cluster is that finance has not been mentioned as a hindrance by any cluster player. While the current stagnancy in the market and technology may be cited as the main reason for poor demand for funds, it is also a fact that the cluster basically operates with its own funds. Other reasons cited for the low demand for bank finance are the high cost of bank loans and the low fixed capital base of majority of the firms. The latter factor is important. As most of the operations are skill based, there is almost no machine worth the name, even in larger units and the ratio of fixed and working capital is very low for almost all firms. A notable exception are the newer units producing moulded plastic based items. But again as mentioned before these units also mostly rely on the locally fabricated machines again to keep the cost of production low. Unavailability of sufficient fixed capital for collateral purposes is another factor for lower off take of bank loan by the cluster based units.

Of course, the exporters avail of bank loans for financing the export operations but they do not mentioned finance as a major issue. It appears that the highly interlinked business operations and close relations with both the suppliers and the buyers have made the cluster operate with minimum aggregate working capital and relying more on own fund to minimize the cost of operations. While the Indian manufacturing sector, particularly the small scale one always complains about the paucity of bank loans as the primary reason for the poor performance of the sector, the case of Jalandhar sports goods cluster is completely different.

One underlying fact behind the reluctance of the cluster based firms to go for leveraged operations, is the conservative mindset of the entrepreneurs. As mentioned in the history of the

Reasons for low leverage.

cluster, most of the entrepreneurs migrated together from Sialkot and at least the older generation still maintains that solidarity. To them making cheap and selling cheap is the motto of business. Debt and default are still taboo and while the other two local clusters of Leather and Hand-tools are often accused of financial irregularities, the sports goods cluster is almost clean in this respect. Even the bankers do not have much complain about the financial disciplines of the cluster based firms, a rare feature in the industrial scenario of India.

The issue had to be analysed at length as the low leverage of the cluster on one hand, has given it the competitive strength by lowering the cost of production while on the other, it has inhibited modernization and mechanization in the cluster. In fact motivating the able cluster based firms to adopt state of the art technology through institutional finance may be a key issue in upgrading the cluster to a producer of sports goods for the high end of the market.

The issue of infrastructure again does not appear to be a key issue for the cluster. The affinity of the cluster player to the traditional areas of concentration has been mentioned before. The industrial complex set up by the Punjab Government did not have many takers as it was situated at quite a distance. However, now firms that are going for diversifications into items like Sport Shoes etc. and into new technologies like plastic moulded items, are going out of the

Infrastructure

cluster to the fringe areas of the town. While space in the traditional areas is scarce, and cluster associations demand for a new industrial complex, it appears there will not be much shifting of production activities to a new area, at least for the traditional items, till all levels of the core cluster players are shifted to the new location. Recently the State Government has commissioned a study for the feasibility of setting up a Special Export Zone at Jalandhar. While it may be feasible keeping in view the requirement of the other clusters of Jalandhar, from the sports goods cluster point of view, only the larger exporting may move out and that also to produce only new range of products.

The road, rail and telecommunication systems are one of the best in the country and the power supply position is also highly satisfactory as per the Indian standards. The situation is expected to improve further with the privatisation of the electricity distribution system.

Human Resources Development

Human Resources development is one of the most neglected areas in the cluster. There is almost no systematic training system for the workers in the cluster. As the prevalent manufacturing system has skilled based manual operations, the traditional training method helps to make a semi-skilled into a skilled worker. While this may be fine and most cost effective

for the traditional systems of production, it provides no scope for inclusion of new techniques and technologies.

While innovation is a continuous phenomenon, improvements are more of a casualty in the cluster. As need for systematic training goes hand in hand with infusion of new products and technologies, the cluster players will probably not feel the gap in HRD till new products and techniques are introduced in a big way. However, that day may not be far away if the cluster wishes to survive the onslaught by the foreign products in the liberalized tariff regime. And even for operations like stitching of balls, the introduction of new tools and techniques is required to improve the product quality up to international standards.

Quite a few institutions in the town have facilities for training in related skills like stitching of garment, shoe making, carpentry etc. but they state almost no demand from the sports goods industry for trained manpower. While the basic reason has already been explained, it is also a fact that the training curricula and the methodology of these institutions are quite outdated and will not introduce any improvement in the existing production systems of the cluster. So there is a need to develop at least a few institutions to provide trainings in improved techniques in sports goods.

Of the supervisory staff also, the technically qualified people are not in demand in the cluster. Only the producers of new items like sports shoes and moulded items need and employ qualified persons. However, firms who have gone for ISO 9000 certifications employ qualified persons for the quality assurance areas. Professionally qualified managerial staff is almost absent in the cluster as entrepreneurs themselves manage the entire show. Providing technical and managerial training to the next generation is also very rare in the cluster, even though the Punjab Technical University lies in the near vicinity.

Among the Government machinery, the Tax administration and Labour Welfare Department appear to be important for the cluster. While complains about the Central Tax authorities are

Government machinery

rare, the rigid approach of the State Sales Tax administration is widely criticized. While tax evasion may be widespread, the Tax authorities also appear to be short of imaginative approach. The labour welfare department had taken quite a dynamic role in the efforts of the cluster to meet the challenges arising out of the child labour issue as mentioned earlier.

Business Development Services (BDS) providers have important contributions in the growth and development of an industry but they are nearly absent in the Jalandhar sports goods cluster. Private consultants and development technologists from the suppliers are available in plenty in the adjacent two clusters of leather and hand tools but are simply not visible in the sports goods

BDS providers

cluster. The reasons are not very difficult to find. With a skill based manufacturing process, in which the entrepreneur himself has sufficient expertise and a highly personalized marketing system, the BDS providers has really little to offer in the areas of technology and marketing, the two most common services needed by the industry in general. It is also a fact that the latest technology in

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sports goods is so specialized that it is difficult to find persons or institutions having adequate level of knowledge in the former. And same is the case for market related information, both for domestic as well as export markets.

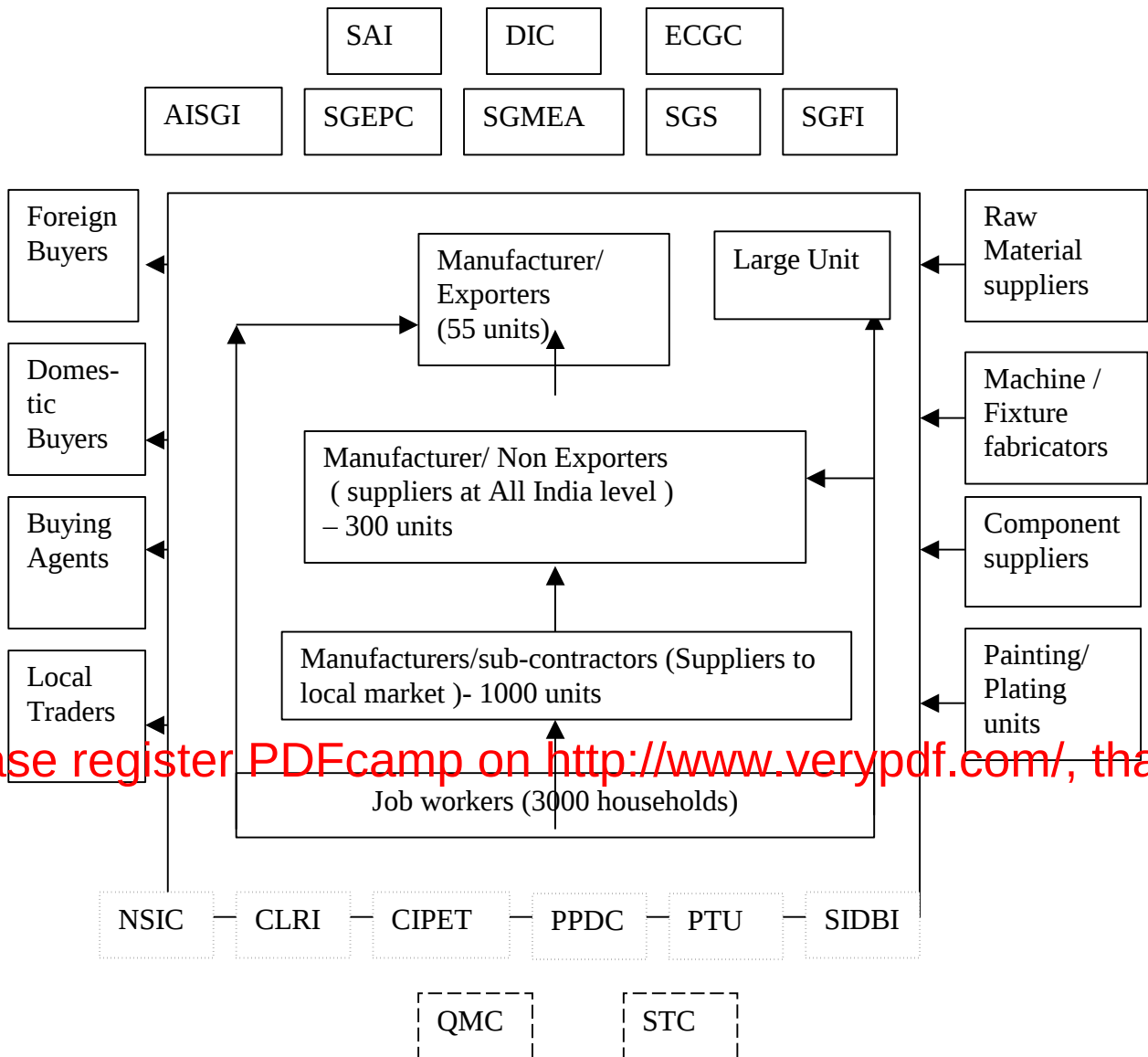
The institutions in the vicinity of the cluster, as shown in the following cluster map with dotted lines, could provide important services to the cluster particularly in the areas of product development and training. But they have little interactions with the cluster actors basically due to the ignorance of both sides about the need and competence of the other. In fact, institutions set up basically for other clusters like the Central Institute for Hand Tool, could provide important services for the development of tools etc. for the modernization of the production process.

Of course the larger exporting units are availing services of the expert institutions like Footwear Design and Development Institute, Noida and at least one local firm had taken the expertise of the Punjab Technical University for product development. But these are exceptional cases and the institutions mentioned are not typical BDS providers, who come to the doorstep of the firms to sell their services. Again the same group of firms availed services of consultants to implement ISO 9000 Quality systems, but these were basically one time affair and the outstation consultant probably could not find sufficient business opportunities so that they can set up a shop in the cluster. The exporters also engage consultants in the foreign markets to develop new business and markets.

The only agency which is providing real BDS services to the cluster is SGS, as detailed in the next chapter. But they have also kept their services limited to certification of the products as 'Child Labour not used' to promote their acceptance in the advanced countries. Though enhancing the market for the cluster based products, indirectly through their present services, SGS has not initiated services related to their core competence areas of product and process quality assurance in the cluster, probably because of not finding an adequate market.

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5. CURRENT CLUSTER MAP OF JALANDHAR SPORTS GOODS CLUSTER



There are quite a few categories of players in the Jalandhar sports goods cluster. While some of them are involved in the production chain, others are providing various supports in the business processes. In the production system there is a hierarchy of players, particularly for the production of stitched inflatable balls, the most important product of the cluster. And of course there are the raw material suppliers, basically agents of manufacturers located outside the cluster and the provider of services like Powder Coating, Painting, Packaging etc. There are also a number of institutional players, who are providing various services to the business operations of the cluster. Some other institutions in the vicinity could also provide BDS to the cluster but they are not committed at present, basically due to a lack of information and networking. These are shown by dotted boxes in the cluster map

6. CLUSTER ACTORS

The core cluster actors are those firms, which are directly involved in the production and delivery system of the cluster. These are the elements, which keep the cluster alive and functioning by playing their roles in a highly interlinked production system. These players could be categorized according to the functions carried out by them and as per the law of economics, according to which they come into a hierarchy with the larger firms at the top and the tiny micro enterprises at the bottom with an upward flow of the materials. These categories of players are described below.

Large manufacturer

There is one large-scale unit in the cluster. Established in the year 1961, almost since the settling of the cluster in its present location, the unit is the largest manufacturer and exporter of inflatable balls in India. It claims an installed capacity of 3.2 million balls per annum. The company has an in-house designing and printing facility to print customized logos on the balls. It has also developed special customised packaging for balls. They also have an in-house R&D facility for development of improved products. With almost all facilities inside its site, the company has little interaction with the other core cluster actors except probably the job workers i.e. ball stitchers.

But again these workers are sufficiently engaged by the company, thus making them captive workers for the company. However, being at the leading edge of the technology, the company surely acts as a trendsetter for products and technologies in the cluster.

The most dominant group of firms could be identified by their considerable export of sports goods. Though there are more than 100 members of the Sports Goods Export Promotion Council in the cluster, the number of regular exporters may be around 50, who are also members of an association of sports goods exporters called the Sports Goods Manufacturer

Manufacturer Exporters

and Exporters Association (SGEMA). With main interest in exports, these units produce inflatable Balls, Cricket Bats, Cricket Protective Gears etc., which are the traditional export items from this cluster. With higher production capacities and well laid out factories, these firms

constitute the top level of the hierarchy in the business process of the cluster. Some of these firms have adequate testing facilities to assure the quality of their products and many have been certified to ISO 9000 standards. Product diversifications and technology up-gradation in the cluster generally originates from these firms and they are the pioneers in starting export of Sports Shoes. Moulded inflatable balls are another new product introduced to the cluster by these units.

The next category of players as per their importance in the cluster, are the suppliers to the domestic markets. The number of these firms could be

Manufacturer suppliers to the domestic market.

estimated to be around 300 from the membership of an association called Association of Indian Sports goods Industries (AISGI). Size and output wise, these units are smaller than the exporters and as their main focus is on the

domestic buyers so their product range is also different. Many of these entrepreneurs are themselves highly skilled in manufacturing of some products and as a result that becomes the core competence of that particular firm. Many of them still personally supervise the quality of each product that is turned out by the firm. Due to their personal approach to marketing, these entrepreneurs make regular visits to their 'pocket' markets. Often these firms supply to the larger manufacturer-exporters, thus giving them high flexibility in manufacturing capacities. These firms generally do not go for direct exports due to insufficient capital base that is needed to undertake the risks involved in exports and also to hire the human resources needed for the

legal formalities. However, some of these firms are occasional exporters and members of SGEPC.

Micro-enterprises and sub-contractors constitute an important mass for the cluster. Basically a one man show, these firms are characterized by the personal manufacturing skills of the owner, who often is a regular worker. However, firms of this category, who produce stitched inflatable balls, engage a large number of job workers for stitching work. These firms operate as sub-

Micro- enterprises and sub contractors

contractors to the above category of firms and many have very good order positions due to their reputation in the market. Basically producer of a single item, these micro enterprises do not go for much direct marketing due to limitation of resources and manpower. However, they have regular over the counter

buyers, who are aware about their product quality. Concentrated mainly in the core cluster locations (Bast Nau and Basti Sheikh) and other sub clusters located in the nearby areas, these firms are difficult to enumerate. Most of these firms do not get registered with the DIC due to the fear of coming into the Tax net. Already 3000 of such micro enterprises making only stitched balls have been identified by the SGFI, and their total number may be near 4000.

Coming at the bottom of the echelon are this category of cluster players, who provide the skilled labour to the cluster. Again these job workers may be divided into two sub-categories, those who work in the firms and factories of the above categories and those who function from their homes. While employing skilled workers at job rate is universal in the cluster, due to its characteristic manual skill based production method, the household job workers are entirely engaged in stitching of footballs.

Job Workers

Already 10,000 such household workers have been identified by the SGS, an agency engaged in certifying firms in terms of non-use of child labour in their production process.

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The number of the job workers working in the premises of the previous three categories of firms, is considerable. They are a dominant number with 9000 workers in sports goods industry, as mentioned in the DIC data. As only unskilled labour and white collar workers like clerks, accountants etc. are employed by the cluster based firms as wage workers, so their numbers generally go unreported or grossly understated, to avoid liabilities under the various statutory acts for labour welfare. However, these players have very limited control over their roles as they function basically as wage workers except that their daily earnings depend entirely on their efficiency and also on effectiveness in production (a defective product means less earnings). Having the scope of increasing their income by increasing productivity, these people are always in search of improved techniques, and a large number of sub-contractors and micro entrepreneurs of the cluster originate from this category.

Other players in the cluster are the raw material suppliers, the traders, providers of services like painting etc., the buyers and the institutions who are providing various services to the cluster.

Other players

As mentioned earlier, the traders are conspicuously absent in the cluster due to a very low transaction cost in the cluster. However, there are some trading units, who supply items that are not produced in the cluster, to the cluster based suppliers of the domestic markets, who need all sorts of sports goods to complete their baskets for the out-station customers. So they are more like

suppliers to the cluster than traders.

Again, outstation buyers are also not very visible in the market as the cluster based entrepreneurs themselves make regular visits to their pocket markets. Some smaller buyers from the outstation markets and the retailers from the nearer north Indian cities however,

regularly visit Jalandhar but they do not have much importance in the operations of the cluster. The buyers from overseas too regularly visit the cluster but their activities are limited to inspection of the facilities and the products of the firms with whom already some negotiations have been completed by their parent firms. However, it has been learnt that these buyers also provide some technical inputs as they also visit firms of competing countries like Pakistan.

The raw material suppliers provide natural as well as man-made materials needed by the cluster players. While the important natural material i.e. wood, comes from the nearby areas, the manufactured items mostly comes from places like Delhi and Mumbai, though there are a few local units for making PVC cloth, an important item for making stitched inflatable balls. Besides selling the material, the suppliers provide almost no technical support to the firms and nor do the original producers show any interest in developing new materials. This is proved by the fact that even after half a decade of introduction of PU as the cover material for inflatable balls, the material of required quality is not available indigenously. The situation is in stark contrast to the services provided by the suppliers of chemicals to the cluster of leather industries that is located almost adjacent to the sports goods cluster, through their fleet of permanently posted technologists. The reason for this might be that the leather industry has more discernible buyers and thus has to maintain quality or maybe it is the complacency of the sports goods industry with the imported products. Or it might even be just the negligence of the Indian raw material suppliers to this uncertain market. It appears that the last two arguments might be more correct. But the most important reason is surely the absence of a wider dialogue between the raw material suppliers and the cluster based firms to discuss the problem areas.

Raw material suppliers

Packing and Labelling

Special mention must be made of the suppliers of Packing and Labelling material. Though these items do not have much functional value, they highly enhance the market value of the sports goods. Even professional players like attractive labels on their sports equipments to improve their appearances. Club logos and other designs are quite common on the inflatable balls. Though the cluster players mention about satisfactory supply position of these items yet the quality of the labels appear to be very poor. It appears that the typical cluster based firms are not very concerned about the problem, otherwise they would have opted for good quality transfer labels that are already available in the country. The same may be said about the packing materials. The importance of these items in the international market could be realized from the fact that the only sports goods producer in the organized sector of the cluster is having an in-house facility for labeling and packing materials. The situation is almost similar regarding the provider of painting and other surface finishes. It is said that the cluster based firms lost their market to the Chinese Badminton Racquets mainly due to their superior surface finish and labeling.

Institutional players

The institutional players in the cluster are the industry associations, the Government agencies and development Institutions. There are also some other institutions, which though not involved in the cluster at present, could provide valuable services to it. The Government agencies like District Industries Centre and the Labour Welfare Office basically play regulatory roles but they can also make valuable contribution in the promotional activities. The District Industries Centre registers the Small Scale Industries (the current definition of SSI is those firms that have an investment of up to Rs.10 million in plant and machinery). These registered units get some benefits like priority in providing bank loans, power connection etc. Still most of the micro enterprises shy away from registration, till compelled for getting bank loans etc., as they fear that the documentation will bring them under tax net and under the supervision of various 'Inspectors'.

The DIC also operates a Government Self Employment Schemes, under which young job workers of the sports goods industry could get loan for setting up micro enterprises. The Labour Welfare Office is entrusted with the function of verifying implementation of various labour related laws by the industry. In the Jalandhar cluster, they have a special importance due to the issue of use of child labour as raised in some developed countries.

Among the Government supported promotional bodies for the sports goods industry, Process and Product Development Centre for Sports and Leisure Goods, Meerut and Sports Goods Export Promotion Council, New Delhi, are the most important ones. The Sports Goods Export Promotion Council (SGEPC) is an apex body established by the Ministry of Commerce, Government of India, for the promotion of exports of sports goods. Its members comprise about 200 leading manufacturers and exporters of sports equipments of all disciplines. With the Head Office at New Delhi, the council has a branch office at Jalandhar to facilitate exports from the

SGEPC

cluster. SGEPC claims to have created confidence among overseas importers by providing a kind of a third-party guarantee. It tries to play the role of an intermediary between the foreign buyers and the domestic manufacturers.

The council also enables participation of the Indian companies in the annual international trade fairs like ISPO (Summer fair) at Munich, Germany and Super Show in Las Vegas, USA. It arranges the Indian stalls for the participants who enroll with it, with the help of the respective Indian consulates. The council also conducts market surveys of the export markets and sponsor sales cum study teams to the overseas markets. The council also tries to arrange scarce raw material for the sports goods industry and was able convince the administration of the Andaman and Nicobar to partially lift the ban on movement of 'cane', which is an important raw material for cricket and hockey bats for the exporters. SGEPC also brings out a monthly newsletter and maintains a data bank on the export of sports goods from the country.

Process-cum-Product Development Centre for sports and Leisure Goods, Meerut (PPDC) was established by the Government of India to improve the quality of sports goods through quality control and standardization, to meet national and international standards and also to make the industry competitive. Since its inception, the PPDC has tried to improve the quality of the

PPDC

existing products, develop new products for the export markets and to provide common facility services and training to the industry. The PPDC provides a regular common facility service to the user industry through its workshops set up in the field of mechanical engineering, leather processing and carpentry, besides testing facilities through its testing laboratory. PPDC also has a documentation centre for the sport goods industry. However, it must be mentioned that at present there is not much linkage between the PPDC and the Jalandhar cluster.

Small Industries Service Institute, Ludhiana, (SISI) an agency under the Government of India for providing techno-managerial support to the SSIs, is also providing technology and HRD

SISI

services to the Jalandhar cluster. The SISI conducts technology up-gradation studies, and managerial and entrepreneurial development programmes. Recently it has conducted a detailed study report on the sports goods industry.

The Central Institute for Promotion of Plastic Engineering and Technology (CIPET), is an autonomous body under the Government of India, engaged in the development of Plastics and Plastic moulding. The headquarter of the institute is at Chennai but a regional center of CIPET is located in Amritsar. Again, its existence is almost unknown to the cluster players. With more and more use of plastics in the sports goods, the institute can play a major role in the development of new products and in the use of new materials by the cluster.

CIPET

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Another Government institution whose activities have strong linkages with the cluster is the Sports Authority of India (SAI). As the nodal agency for the promotion of sports in the country,

SAI

SAI has a large number of Sports Development bodies under its domain, who can play a great role in standardization of sports goods in the country. However, today the importance of SAI to the cluster is limited to a large institutional buyer of sports goods.

QMC & STC

Two other Government promotional Institutions for the sports goods industry that are presently in a redundant condition are the i) Quality Marking Centre for Sports Goods and ii) Branch office of the State Trading Corporation (STC). The Quality Marking Centre for sports goods was set up by the Government of Punjab to provide product testing and certification services to the sports goods industry. But the routine testing facilities available in the QMC has not been found useful by the industry and today it is taken to be almost closed. The STC had set up a branch office at Jalandhar in the 1970s to undertake export of the products of the local clusters including sports goods. It also had a plan to stock scarce imported canalized items for supply to the exporters. In the eighties, the STC had also set up a test-house for testing of sports goods. Today the testing equipments are lying idle basically due to a lack of interest of both STC and the industry to use them.

Industry associations are important forums of the cluster based firms. The main associations of the cluster are i) Association of Indian Sports Goods Industries (AISGI), ii) Sports Goods Manufacturer and Exporters Association (SGMEA) and iii) Sports Good Foundation of India (SGFI). The SGMEA is mainly a body of the top exporters from the cluster and the membership

Industry Associations

of this association has been kept restricted to about 50 firms. The association publishes a bi-annual journal called 'Vision', which provides good information about the latest trends in the world market for sports goods. SGMEA also provides a forum to its members to discuss their export related issues with the concerned Government Agencies.

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The AISGI is a body of firms that are mainly supplying to the domestic market. AISGI claims a membership of more than 300 cluster based firms. As the nature and the demand pattern of the domestic market is completely different from the export market and the size of the firms is also different, so there is almost no commonality in the function of the above two associations. The AISGI also tries to help its members to recover delayed payments from outstation customers. There are two other important local associations, i) The Exporters' Association and ii) the Sports and Surgical Goods Complex Industries Association, which has some of the sports goods cluster members. However these associations have members from other local industries too.

The current function of both SGMEA and AISGI is following up with the Government on various tax-related issues and statutory laws for the industry. None of the associations provides technology support or market related services to its members. While the SGMEA calls regular meetings of its governing body, the AISGI is not much functional in this regard. It appears a lot of ice breaking; both at the level of executives as well as the members are required in both the above associations to enable them to form a thriving institutional network for the sports goods cluster, as a whole.

Other Institutions

Other Institutions in the vicinity of the cluster that could provide important Business Development Services are; i) Dr. B.R Ambedkar National Institute of Technology (NIT), ii) Regional Centre of Central Leather Research Institute (RECLRI) and Training Centre on leather garments of Khadi and Village Industries Commission (KVIC). The Department of Textile

Technology, NIT has a well equipped laboratory for the testing of all types of fabric and a well endowed faculty. The department is capable and is also interested in taking up development projects, particularly for the development of synthetic fabric used in sports goods like footballs, protective gears etc. The RECLRI also has a well equipped laboratory for the testing of leather, which again could be used for the testing of fabrics used by the sports goods industry. The centre is having a training center for making of leather garments that again could be utilized by the cluster based firms for skill development in stitching of sportswear and protective gears, the two most upcoming items in the export market for sports goods. The Training Centre of KVIC could also be used in providing skill development training to the workers of the sports shoe industry, an item having a high growth rate in the domestic market. As mentioned earlier, a lot of new investments and diversifications are being made in sports shoe units in the Jalandhar cluster.

Among the specialized financial institutions, Export Credit Guarantee Corporation (ECGC) is providing excellent support to the cluster. It provides insurance from the financial risks involved in exports to the sports goods manufacturers. This is providing a great impetus to the sports goods exporters to venture into the new markets of Africa and Latin America. Small Industries Development Bank of India (SIDBI), the Development Bank for the Small sector could also help in the modernization of the sports goods cluster through its various products. The bank can also play a role in entrepreneurial development of the cluster. The National Small Industries Corporation, (NSIC) provides a host of services like machines on hire purchase, exposure to export markets etc. Recently, the NSIC has opened an office at Jalandhar. It could be of benefit for the modernization of the sports goods industry.

Financial Institutions

SGS is an international company providing services in the areas of Quality Management and Certification. It has one of the few accredited laboratories for sports goods. In the Jalandhar cluster, SGS is providing an altogether different but important service. The problem of child labour in the stitching of inflatable balls has been mentioned before. The propaganda on the issue in the developed countries had reached such a proportion that it seriously threatened the export of footballs from the cluster. The cluster rose to deal with the problem and showed exceptional cohesion that led to the formation of the Sports Goods Foundation of India (SGFI). While the SGFI initiated corrective measures to guide the child labours to schools, the industry approached SGS to certify non use of child labour particularly for the export market. Involvement of a reputed organization like SGS in the assurance of non use of child labour has helped the industry in a great way to re-establish its products in the export market. In a systematic effort, the local office of SGS along with SGFI have identified more than 6000 regular football stitching sites (mainly households) in Jalandhar and its vicinity. The exporters get their stitching jobs executed at these sites, which are being regularly checked by the Inspectors of SGS to assure non use of child labour.

SGS

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7. ANALYSIS OF BUSINESS OPERATIONS

Networked production

The business process of the cluster has been discussed in detail in the previous chapter. The strength of the cluster lies in the synergy of activities of the core players, in the production chain. The productive networking of the firms catering to the domestic or export segment, with the sub contractors and job workers give a highly flexible production system enabling the cluster to supply large orders, within a limited period and at a competitive price. Again the intimate supply networking has reduced the transactional costs to minimal such that pure trading in the finished goods is not a viable activity in the cluster.

Low leverage

A unique feature of the cluster is low intake of institutional finance. Though the exporters and to some extent the suppliers to the domestic market go for bank loan for working capital requirements, the off take is kept at the minimum due to a high cost of bank loan. While new projects are fewer than expected, keeping in view the need of product diversification and process modernization to beat the competition and also to penetrate new markets, projects with high loan component are rare. It appears that the core strategy of the cluster actors is to keep the cost of production minimum and to retain the market share by competitive pricing. This approach is natural as the cluster caters mainly to the low end and highly price sensitive segment of the market, both domestic and export.

Unavailability of know how

Another reason behind the conservative investment policy of the cluster players is the rare availability of proven know-how for state of the art products. There is no indigenous source of such technologies and the cost of foreign know how, if available, is considered to be prohibitive. Again, there is not much information about the market size. All these produce a very uncertain picture before the entrepreneur about the future of a new project and this probably deters him from going for diversification or modernization. The few entrepreneurs, who venture for the risk, try to minimize the exposure by using non standard products and equipments, and self acquired know how. Other reasons for the reluctance to go for highly leveraged project appears to be ethical. The cluster based firms have a very strong social relation probably from the days of migration from Sialkot and thus publicity as a debtor or defaulter is considered to be social degradation.

Weak marketing

A dichotomy of the cluster is unwillingness of the players, particularly the exporters, to exchange information on markets, even though they maintain very close social relations. The reason is not very difficult to understand. Any firm here can supply almost any item, by getting it done through the job workers at a reasonable cost. Thus the fear of the players about poaching their niche markets by other players is justified. Due to the same reasons, the firms are not even willing to exchange information about technology up-gradation.

unavailability of market projections

A direct spin off of the secrecy maintained about market related information is the unavailability of market projections. The resistance of the cluster based firms to share information makes any projection of the domestic market nearly impossible and the last reliable information available is about five year old. It appears that the cluster based firms are also not interested in market surveys as they are satisfied with their personal knowledge on their niche markets. The situation is nearly identical for the export markets too. While some studies are conducted by the SGEPC, they remain limited to quoting of global data and analysis of the trends in the export

from the country. For the in-depth analysis of the product or country based markets, a detailed information from the actual exporters is required, which does not appear to be forthcoming.

Need for networks

The adverse effects of the above on the performance of the cluster, is already visible. The demand for the products of the cluster is stagnating and instead of gaining new markets, the cluster is losing existing markets due to the introduction of superior products by the competitors, both in domestic and export market. In the present environment, it is not possible for any SME to develop market and technology alone and networking of the production systems only, cannot sustain the cluster in this global village, where new products are coming in everyday and countries like China are invading the markets with enormous marketing muscles. The only way for survival of the Jalandhar cluster is to develop marketing networks and networks to develop technology on the basis of mutual trust and confidence.

Job workers

The household job workers of the cluster are currently much under focus due to productive and social reasons. A majority of these workers are women stitching footballs and the bulk of the estimated 10-15 million balls produced in the cluster per annum are stitched by this segment. These players generally do not have any direct interaction with the first two categories of firms and mainly get their order from the sub contractors. This operation determines the quality of the final product, up to an extent of 40% (the rest 60% depends on the quality of the material and other operations). They work purely with their family-taught skills and the only equipments currently in use are needles and finger guards. So it is not surprising that the cluster has remained as an exporter of cheap balls of promotional and recreational purposes, with only one or two units certified to the FIFA standards as tournament quality balls.

Problem of Child labour

Another issue affecting these category of workers and ultimately the whole cluster is the use of child worker. Being household workers with 'below the poverty line' income levels, there is always a tendency in the adult job workers to involve the children of the family in the gainful activity of football stitching. In search of immediate additional income, these households think training the children in this traditional activity will be more useful than sending them to the schools. When this issue was blown out of proportions in the developed countries by the interested circles, there was a strong resentment against the use of products made by the child workers and thus the sports goods industry faced the threat of complete halt of exports. The excellent initiatives taken by the cluster players to eliminate the problem of child labour and rise over the issue has been detailed below.

Reality Tree

The reality tree of some of the main problems or undesirable effects are given below. The export market is very important for the cluster and the stagnation in exports and lesser unit value realization is of serious concern. While on the technology front, the unavailability of a Test-House and know-how for product diversification may be identified as the root cause, the absence of a consortia approach and market studies are the major causes for low market expansion. A separate reality tree has been developed for the items, where the market of the cluster is being seriously threatened. And within a period of few years the country has transformed into a net importer of racquet items from being a net exporter in the past.

The unavailability of technical support for product up-gradation and state of the art materials, may be identified as the root causes for the weakness of the cluster based products. The problems in the domestic market has been shown in a separate reality tree. The causes are

nearly identical to those identified for the major products. The problems of the process and product development have also been analysed in a separate reality tree.

While unavailability of the required materials and support, for product and process development, lack of the market data and a lacuna in the policy measures have been identified as the root causes of the maladies being faced by the cluster, the root of the root causes may easily be identified as the absence of an effective common forum. Reluctance of the cluster actors to

Building of social capital

share market related information and exchange technological achievements has seriously impaired the capacity of the cluster to meet emerging challenges in these areas. Again a unified face of the cluster could have helped it to achieve support from the Government. The

excellent synergy that could be developed by the cluster actors is showcased in the Child Labour issue. The initiatives taken by the SGFI with a close support of its members helped it to effectively tackle the ticklish issue and achieve international recognition. It appears while the cluster can gear up to fight the fire, it remains lax to avoid it. Initiatives to build the capacities of the cluster level associations in this regard is the prime task.

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8. SWOT ANALYSIS

A. Strength of the Cluster

1. Skill – A highly skill based production system with everyone, right from the entrepreneurs to the workers of the firm having competence in at least one item.
2. Flexibility – A highly flexible production system, where the jobs are widely sub-contracted and both large and small orders are efficiently executed without keeping a large in-house work force.
3. Networked production – A strong network among the suppliers of the raw materials, the firm, the sub contractors and the job workers, provides a strong production structure with minimum transaction costs.
4. Personalised marketing - A chief characteristic of the cluster is the trend of personal marketing by the entrepreneurs

B. Weaknesses of the Cluster

1. Individualistic Marketing - A direct fallout of the personalized marketing approach of the cluster based firms is the unwillingness of the entrepreneurs to share market related information. This has led to an isolated style of marketing, where there is no coordination amongst entrepreneurs. Often this leads to an unhealthy competition in the export market, leading the firms to accept low price offers for their products.
2. Traditional production system – The manual skill based method of production is still dominant in the cluster. And not much efforts are being made to modernize the production system or to introduce new state of the art products.
3. Absence of BDS providers – The entrepreneurs mainly rely on their personal knowledge, for taking decisions about modernization or going in for new markets. And so the growth of a firm mainly depends on the information base of its entrepreneur. Non reliance on the expertise of professional consultants has seriously affected the growth in the cluster.

C. Opportunities in the Horizon

1. Growing world market - The world market for sports goods is showing a healthy sign of growth with an increase in health consciousness and leisure activities.
2. Demand for New types of Products - Even in the domestic market, the demand for products like health equipments is increasing, and sports wears and sports shoes are becoming fashion statements. Proximity to the bicycle and knitwear clusters of Ludhiana and the leather/ footwear cluster in Jalandhar itself, would facilitate development of the above items.

D. Imminent Threats

1. Emergence of China - China has already emerged as an important supplier for sports goods in the international market and it operates in the same market segment of cheaper low-end products. It has also penetrated in the domestic market and is posing serious challenges to the market share of the cluster.

2. Obsolescence of the products – The designs of the sports goods, even for age old plays like Badminton and Hockey are rapidly changing, and plastics and composites are replacing the traditional metal and wood. However, the cluster based firms are still producing the traditional products, which may become obsolete in the near future.

3. Emergence of social issues - Social issues and fair trade practices are being given more and more weightage in the developed countries. With traditional production systems, the cluster based firms may not be observing all norms laid out for fair trade. This may lead to restriction of markets in the developed countries.

4. Emergence of other Production Centres – The core competence of the sports goods cluster at Jalandhar is the highly skill based production and a networked production system. With the emergence of machine fabricated items, these competences will become redundant. The mechanized production facilities, near the large markets like metros, are already producing competitive products. With this trend, the cluster may soon loose its competitive advantage and consequently its market share.

9. INTER INSTITUTIONAL LINKAGE MATRIX

The inter institutional linkages are shown in the matrix below. The number in each cell indicates the extent of cooperation between the linked institutions. 1 indicates non-existence of any cooperation and 5 indicates an ideal situation.

	AISGI	SGFI	SGMEA	PPDC	SAI	SGEPC	DIC	ECGC
AISGI	0	1	1	1	1	2	2	1
SGFI	1	0	1	1	2	4	3	4
SGMEA	1	4	0	2	3	4	3	4
PPDC	1	1	1	0	2	2	1	1
SAI	1	2	3	2	0	3	1	2
SGEPC	2	4	4	2	2	0	2	4
DIC	2	3	3	1	1	3	0	1
ECGC	2	4	4	1	1	4	1	0

It may be noted that other than SGFI and AISGI, no other institution has developed the necessary linkages for synergies with other institutions. Again the institutions shown in dotted line in the cluster map have not been included in the matrix because at present they have no interaction with the cluster. The linkages of PPDC, Meerut, which is the only expert institution in the area of development of sports goods in the country, with the local institutions is at present very poor.

10. STRATEGY FOR DEVELOPMENT

From the analysis of business operations and the Reality Tree of the prime problems, the following areas could be identified for intervention to facilitate growth in the cluster.

- i) Widening of export market
- ii) Standardisation of the products
- iii) Development of domestic market
- iv) Improvement of production processes
- v) Product diversification

The sports goods industry in India is export oriented. Though the exact size of the domestic market is difficult to estimate, it is sure that export is the largest market for the industry. In the Jalandhar cluster too, export is the prime activity both value and technology wise. However, the export market that has been targeted till now is the low value, high quantity recreational items.

Widening of export market

While this may have suited the cluster based firms in the past, due to the low cost of production and also their inability to meet the quality requirements of the high end market, the situation now is changing fast. With the entry of China and other developing countries in the same segment, the cluster is facing stagnant exports. China has a huge advantage in the game of high volume and low cost production. The best strategy for the cluster at this juncture would be to follow the path of Pakistan, which has already established itself in the high end of the market for quality sports goods, particularly footballs.

So far, the most important market for the cluster is Europe and America, most importantly U K and USA. While there is a dire need to improve the product quality to increase penetration in these markets, there is also a need for identification of new markets in the countries of the developing world. This will also suit the core competence of the cluster for making high volume products for the lower end of the market. Although the SGEPC is providing support to the

explore new markets

exporters to explore new markets, yet their efforts so far have been limited to individual level. Today, when China is entering the global market as a monolithic behemoth, and even for countries like Pakistan, where cluster level associations are spearheading the marketing drive, what level of success may be achieved at an individual level could be well imagined. However, till now there has been no efforts by the cluster players for joint marketing. An interesting point is that while the cluster based firms maintain very close social relations due to historical reasons, they are highly secretive about market related information.

The reasons behind such behaviour, have already been explained above but the need of the hour is a consortia approach. The secrecy maintained by the exporters about their buyers and contacts in the traditional markets of Europe and USA, may be justified by the time and money invested by the individual firms. But for new markets, the cluster based exporters should develop consortia, both for creating confidence in the buyers and also for overcoming competition by the joint marketing capacity and resources of the consortia. This will also help the Government agencies like SGEPC to support the exporters more effectively.

Export consortia

Product Standardisation

Standardisation of the products, particularly of stitched inflatable balls, which is value-wise the single most important product of the cluster. is needed immediately. This is more so because balls are the single majority item in the basket of sports goods exported from the country.

As mentioned earlier, the balls exported from the cluster are mainly catering to the promotional and recreational segments of the market. The balls are not considered to be of professional quality. However, with an increasing competitions from countries like China, Indonesia etc. in the former segment, the cluster needs to target the market for high value professional quality balls. While in Pakistan, a large number of firms produce footballs conforming to FIFA standards, the number is dismally low in India. And to cater to the high end, high value market, the products of the cluster need to be standardised.

While the process of manufacturing is similar in both the countries, non availability of accredited testing facilities has been identified as a major hurdle for product standardisation. Important exporters from the cluster and some other quality conscious firms have in-house testing facilities. But for acceptance in the international market, third party certifications from reputed agencies are needed. As there is no such facility in the country at present, the balls are sent abroad for testing, which adds significantly to the costs. Availability of an accredited testing facility in the cluster will not only create confidence about the product in the international market but will also provide the necessary feedback to the suppliers on the quality aspect.

Accredited Test House

Domestic market development is another important need of the cluster. While value wise the domestic market may be smaller than the export one, yet a majority of the cluster based firms are dependent on the former. As mentioned earlier, the domestic market for sports goods has a completely different composition than the export basket. While football is the king of export markets, the domestic one is dominated by products like cricket gears, badminton equipments etc. Of late, fitness equipments are also showing a high growth rate. While the Government is providing support to the exporters, there is almost no institutional support for developing the domestic market. Already with the onslaught of cable TV, sports has taken a back seat as a leisure time activity, and the suppliers to the domestic market are reporting a shrinking market.

Domestic market

With the opening of the market, the situation has been further complicated by the entry of foreign suppliers like China. With their improved manufacturing system and high production capacities, Chinese exporters are providing attractive products to the Indian users that are being well accepted. In fact, they are fatally posing a threat to the cluster in badminton equipments. And it is expected that in the near future, synthetic alternatives for many traditional sports goods will be brought to the Indian market that will seriously threaten the markets of the cluster. Under this situation, a systematic development of the domestic market is badly needed for the cluster.

The need is to launch a campaign to make the users, particularly the institutional buyers aware about the products of the cluster and their advantages. A common brand, at least for the Indian markets should be developed. The variance in the quality of the imported products, as often reported, need also be propagated. Institutional buyers like army, paramilitary forces etc. are important for the cluster due to their bulk purchases and they need to be cultivated further. SAI is probably the largest civilian consumer of sports goods. While some of the cluster based firms are regular suppliers to SAI, a better interaction may further widen the market.

Marketing Campaign

And all of the above could be delivered through marketing networks. The individual efforts of the cluster based firms for developing niche markets need to be synergised through marketing networks. The promotional campaigns could probably be best launched by the cluster based associations, which can also promote the word 'Jalandhar' as a prelude for developing a common brand. With this

Marketing networks

approach, it will also be possible to garner some support from the Government for the promotion of the products of the cluster.

The story of the Chinese invasion of the Indian sports goods market reinforces the need for improvement in the production processes. The mechanized production system of the Chinese suppliers and the better finish and labeling of their products have made them, both quality and cost wise, attractive to the Indian consumers. Still the cluster actors claim that it is the finishing rather than the functional properties of Chinese products that has beaten the Indian ones.

Process modernisation

The export market surveys conducted by the SGEPC, indicate the need to produce synthetic based state of the art designs of sports goods, for which modern facilities are to be established.

Which way

Development of diversified product ranges are also being stressed to cater to the discernible needs of the western countries. While setting up of modern production facility may be a good prescription for the sports goods industry in general, their applicability in the Jalandhar cluster should be decided with caution.

As explained at length earlier, the core competence of the cluster is a highly skill based production system and the low cost of production through elaborately networked production process. And all of these advantage will be lost with a modern mechanized production system. In fact, this cluster may not be needed at all, as the entire process will become in-house with new material, new technology and new skills that are all alien to the present cluster.

It appears that the pragmatic path for the cluster should be hybridization of technology. Wherever needed, the cluster should adopt modern production facilities and the state of the art materials. However, it should retain its networked production method based on traditional skills.

Hybridized process

In fact, the same approach has already been adopted by a few of the cluster based firms. The case studies for hockey sticks with state of the art components and shuttle corks with Chinese components, support the above strategy. However, some mechanisation of the process is urgently needed. For forming of wood and metal, used widely in sports goods, special purpose machines and fixtures are required to be developed. Similarly, facilities are needed for production of world class labels, stamps and packaging materials. Modern facilities for services like seasoning of timber and painting and finishing of the goods, are also needed to improve the product's appeal.

A problem in this regard is the tendency of the entrepreneurs, to manufacture indigenous machines rather than purchasing them from external sources. While this help to keep the investment level low with consequent reduction of the cost of production, the product quality becomes a casualty. As opined before, complete mechanization may not be the correct approach for the cluster but best available machines are needed in the cluster in the specific areas. as mentioned above. And the best approach may be to motivate the cluster players to set up separate units for providing these services, as these do not appear to be the priority areas for the basic producers. For this purpose, interaction of the suppliers of such machines with the cluster actors is needed. Coordination should also be sought from the financial institutions for funding such projects.

Ancillary services

R&D center

As many of the special purpose machines are not readily available, they are required to be developed within the cluster. As taking up R&D tasks is not possible by the small firms due to the costs and the risks involved so a common facility is needed for such activities and some public funding for the

same shall speed up the process. The R&D center should be set up in the cluster itself, as earlier efforts to develop these machines in a far away Government institution did not bear much results. A day to day coordination is essential for product and process development. In fact a Test House, which is of immediate need, may be set up first and then be subsequently developed into a R&D center. The establishment could be kept lean by installing only the essential facilities and then networking with the other institutions located in Jalandhar and also at Ludhiana that are major centers for engineering with a large number of support institutions.

Another area where the R&D centre will be of use is the development of state of the art materials like composites, sandwiched fabrics etc. While production of these items may need sophisticated technology and considerable investment, the minimum economic requirements may also be too large for the cluster. But the centre may develop exact specification for the materials needed and then locate producers of such items and assist them to develop those materials. With the thrust on product development and process modernization, the R&D center would also be a harbinger for developing prototypes for the new sports goods.

Development of new products & materials

With all stress on the product quality and process modernization, the cluster cannot remain complacent with the existing range of products in such a dynamic market. So product diversification should be a continuous phenomena and the cluster should develop products with synergic links. While sports shoes may fit ideally in the product basket of sports goods, its inclusion in the cluster will not utilize the core competence of the cluster. So a judicious diversification plan keeping in view the market demand, material availability and above all, the core competence of the cluster is needed and the R&D center may be the ideal agency for that.

Other areas, where the cluster needs systematic support are regular interaction with the raw material suppliers for development of appropriate material, development of BDS providers for technology as well as market development and regular interactions with Government for policy level support. As mentioned earlier, almost no interaction with the manufacturers of the raw materials happens in the cluster to discuss the problems in quality. The basic reason for this may again be a fragmented approach.

Individual units, particularly the larger ones may be interacting with the suppliers but that does not enlighten the whole cluster. As a result, the manufacturer does not get a correct idea about the total demand of a particular item. This is the reason why even products like PU and Aluminium sections, which are produced in the country, are not available as per the requirements of the cluster. Initiatives by the cluster based associations are required for holding regular dialogues with the raw material suppliers.

BDS providers are important change agents for the development of an industry. They are simply not visible in the cluster. While one reason may be that developing expertise technology and market for the diverse range of products in sports goods is difficult, the other seems to be the over-reliance of the entrepreneurs on their own knowledge, which eliminates the need of any BDS provider. But with the introduction of plastic moulding and need for better surface finish and labels etc., technical consultants will have a greater role in the coming days.

Again, for developing new export markets, engaging marketing consultants will be the most cost effective approach. However, as the current mindset of the cluster actors doubts the utility of the BDS providers, so some financial support in the initial stages for trying out the latter's services

may be beneficial. Quality consultants will also be of great help to introduce quality systems in the cluster based firms, but at present only a handful of firms are equipped for that.

Regular interaction with the Government agencies for removing hurdles in the growth of the cluster cannot be overemphasized. At present, the cluster based associations have occasional interactions with the Government, mainly on tax related issues. Those too are generally held in crisis situations. The need is to organize periodic meeting with the authorities to discuss the problems in a pro-active manner so that there is sufficient time for corrective action. A comprehensive action plan for propagating the cluster development at the Government level is needed and this could be best done through the cluster level associations.

11. VISION STATEMENT

From the discussions held with the various cluster actors, the current vision of the cluster may be stated as:

“The cluster will endeavour to retain its position as the leading supplier of conventional sports and leisure goods in the domestic market, and increase its share in the global market, particularly in the stitched inflatable balls segment that are for recreational and leisure time use, while providing maximum value for money to the user.”

With the implementation of the proposed strategy for development, the above vision is expected to be re oriented and the vision statement under the shifted paradigm may be:

“The cluster shall be the prime supplier of sports goods of international standard, both for recreational and tournament use in the domestic market, and increase its share in the global market by at least 50% in the next five years.”

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Both the above targets will be achieved through improving the product quality, adding new products to the basket and penetrating into new markets through consortia, while providing maximum value for money to the user and following the fair trade norms.

The highlighted features appear to be beyond the current dynamics of the cluster and are expected to be achieved through an Action Plan as described below.

12. ACTION PLAN

The action plan for the development of the sports goods cluster of Jalandhar could be divided into the following segments:

- a) Capacity Building of the Industry Associations
- b) Measures for Product Standardisation
- c) Development of Marketing Consortia
- d) Formation of Networks for Technology Development
- e) Capacity Building of the Training Institutions
- f) Introduction of Fair Trade Practices

The two main industry associations of the cluster i.e. AISGI and SGMEA (SGFI has not been considered as its present mandate is only to eliminate the problem of child labour), are presently engaged in activities related to the modification of Tax structure, amendment of statutory laws

and finance related issues. The reason for this focus is that these areas affect all cluster based firms and leads to quick consensus, because everyone realizes that a united face is the only means to force the authorities to listen to them. To develop the cluster to a dynamic self sustaining one, these associations need to be facilitated to act as the mouthpiece, a common arm and also as a think tank of the cluster.

The common problems in both the above associations are; a) they do not have appropriate staff to work on the issues of common concern and b) the office bearers are busy entrepreneurs who hardly find time for such activities. So the immediate need is to facilitate these associations to employ full time professional staff to take care of the enhanced activities as per the action plan. These persons will also act as the nodal points for formation of networks for market and technology development.

Another important activity for them will be to develop some regular communication systems within the members e.g. newsletter etc. and with the other stakeholders through publications and website. Maintaining an efficient information center in the aegis of the associations will be another important task of the new executives. Besides the staff, the associations will also need logistic support like proper premises, computers, furniture, telephone lines etc.

The present communication system within the members of these associations is very poor. The Annual General Meeting and the Emergency Meetings that are held to discuss the crisis issues are the only occasions when the members interact. A regular newsletter will be an efficient media for the members to interact and communicate their opinions. The appropriate means of communication with the stakeholders will be periodicals and website. While a well laid periodical will enhance the image of the association among the stakeholders and may be a good marketing tool, a website will be a very cost effective tool.

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The proposed information center will compile all the relevant information about the cluster which will then be disseminated through the publications. Though in the current environment the members of the associations may not agree to part with their market related data, at a later stage after going through certain confidence building measures, they may slowly come out of their shells. This will ultimately lead to setting up of a sub-contract exchange for free flow of market related information among the members.

Formation of market and technology related networks will be another important initiative. The networks are a proven tool for effective negotiations with the existing buyers, developing new markets and diversification of the products. With the limited trust among the cluster actors about market related activities and varying interest about product and market segments, these networks may be visualized as a small coherent group of firms that have common interests.

While the life of the initial networks may be short in the current environment, say for participation in a fair or negotiating with an institutional buyer, they may continue to have ripple effects. The associations, as common ground of meetings, may be the ideal launching pad for networking with the executives as Development Agents (NDA). Similarly, networks for product development, technology up-gradation and quality management among firms of common interest will facilitate such activities.

BDS providers have a major role in enabling and functioning of the networks. At present, they are absent in the cluster. So identification of appropriate consultants and introducing them to the cluster will be an essential component of the network building exercise. Also export consultants will be very useful for the cluster. The real problem will be the location of technology consultants

for the cluster. The processes of the cluster are highly specialized and the locating a person outside the cluster (or for that matter in its sister cluster at Meerut) will be difficult. As the acceptability of the local expert may be doubtful, a foreign consultant will be an ideal choice. He may also be a nucleating agent for the networks.

The most important task of the associations will be setting up the proposed Test-House for sports goods. While the necessary funds may be available from Government, the commissioning and running of the facility will be the responsibility of the cluster based institutions themselves. In the present scenario this appear to be a very tall order for the associations. It is expected that the networks will facilitate in setting up the Test House as this will be an important requirement to penetrate into the high end of export market and justify product up-gradation through technology development.

Again, for justifying the need of a test house to all stakeholders, a feasibility report from a reputed agency will be a must. Again involvement of an international consultant of repute will assist in getting the necessary accreditations for the same. It is expected that the proposed R&D center for the cluster, will eventually emerge out of this Testing Centre as the demand for technology and product design intensifies as a result of the growth of the cluster.

Training of the cluster actors to meet the need of advance knowledge for the growth of the cluster, will be part of the intervention strategy. At present the cluster actors do not feel the need of any training, neither for themselves and nor for their workers. But with the introduction of new products and advance technology, new types of skills will be required in the cluster and the traditional method of in-house training will no longer be useful. Even for the existing processes like stitching of balls, new fixtures and machines are expected to be introduced. All of these will need retraining of the existing workers and introduction of fresh trained workers to the cluster.

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While quite a few of the cluster based institutions are already identified for conducting the training programmes, a lot of homework is needed in this respect. For example, the current training programme of garment stitching is to be refurbished for skill development for making of protective equipments and gloves. Similarly an ordinary course of carpentry is to be restructured for training in fabrication of wood-based sports goods. All of these will need close cooperation of the cluster actors and training institutions. Requirement of external consultants may not be needed but availability of foreign expertise will surely infuse fresh ideas in the training programmes.

Short listing of the institutions for conducting the training programmes at this juncture may not be useful as this will depend on the emerging training needs and the willingness of the institutions to provide the same. Most of them have their own mandates and will agree to introduce new programmes only when they are convinced about their marketability. The NGOs may have an important role in the training programmes, particularly for the ball stitchers. Mostly located in the fringe areas of the town, these job workers, predominantly women are needed to be trained on site. This is technically feasible as in the foreseeable future

Ball stitching will remain a manual exercise but some fixtures and tools could be introduced to improve productivity and quality. NGOs will have an important role for mobilizing the large mass of stitchers. Again as conventional training institutions may not be interested in providing such type of training and some may not even have the required expertise, the NGOs could be of much help. For this purpose, some funding is required for empowering the NGOs for conducting the training programmes. Again the training institutions may also need fund support for equipping them to create new programmes.

The NGOs will also be effective tools for implementing fair trade practices in the cluster. The SGFI is already doing a commendable job for rehabilitation the child workers and its efforts need to be supported by funds from Government and multilateral agencies like CARE. As the task is too much for a single institution, other NGOs should also be encouraged to join the programme.

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