

Cluster Formation in the Textile Industries of Europe

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Cluster formation is a modern trend in the textile industries of developed countries of U.S.A., Europe and U.K. A Cluster is defined as a group of companies involved in a common activity of manufacturing industrial products such as textile and clothing on the basis of collaboration and competition. Strategic Alliance is also another form of 'Cluster' which provides opportunity to small and large firms to develop cooperative relationships. F. Dadashian, M. Fazal Zarandi and S. Shakibfar discussed strategic alliances. A Palmer and J.T. Williams reported the main features of the European textile industry in their papers presented at The Textile Institute 85th World Conference was held on Colombo, Sri Lanka from 1st to 3rd March, 2007.

Mr. Trevor Rowe of the University of Bolton presented results of his seven years research work concerning the competitiveness of the textile and clothing sectors of Turkey and U.K. during his lecture in Karachi, at the Sheraton Hotel on 16th April, 2007. The lecture was arranged by Textile Institute of Pakistan in co-sponsorship with the University of Management and Technology (UMT) Lahore. The views expressed by these experts are briefly reported below

1. Strategic Alliances

By strategic alliances cooperating firms pool their resources, capabilities and competencies to pursue mutual interests in developing, manufacturing or distribution of goods and services. Effective alliances lead to growth and profitability in the domestic as well as global markets. On the basis of these alliances, the collaborating firms can face the challenge of low cost imports adequately. A typical strategic alliance comprises of three stages:

1. Formation: Identification of opportunities, negotiation of objectives, commitment of organization and financial resources, establishment and activation of operational infrastructure.
2. Operation: Progress and growth of collaborative operational activities to face unanticipated challenges and emerging market conditions.
3. Finalisation: Prompted by the initial conditions of agreement.

1.1. Success Factors

Following kinds of success factors are associated with the formation of strategic alliances:

1. The alliance partners benefit from economies of scale of static and dynamic type.
2. Quick and easy accesses to knowledge and market conditions accrue to start-up partner.
3. Development of new kinds of products and technologies becomes possible at reduced risk and capital cost.
4. Both partners acquire capability of influencing structure of market competition.

In consequence of continuously changing technological environments the firms realize that reliance on internal development is no longer sufficient to deal with the emerging conditions. The use of strategic alliances allows them to increase their flexibility and tap into other company's technological resources. Thus, they learn and acquire from each other technologies, skills, and knowledge not available within their own organizations.

1.2. Structure of Strategic Alliances

Strategic Alliances may be vertical or horizontal. Partners involved in different manufacturing stages, e.g., fibre manufacture and textile manufacture form vertical alliances. On the other hand yarn manufacturer, fabric manufacturer and wet processor enter into horizontal alliances.

1.3. Alliance Partner Selection

Alliance Partner selection must be done in a transparent manner and right partner should be attracted. The value systems of partners must be aligned. Furthermore, delegation of decision rights versus the agency costs in maintaining the integrity of alliance and brand reputation must be on the basis of consensus between partners. Careful strategic planning and good partnership preparation are essential for alliance success.

2. European Textile Industry

The textile and clothing sector contributes 4% of European Union (EU) manufacturing production and employs more than 2.3 million workers with important regional concentrations. The value-added production has steadily declined since 1995 @ 1.2% per annum and employment by 3%. However, the productivity gains rate stands at 2% per annum. The total turn over of 25 member EU is estimated at dollar 215 billion. High quality technical, aesthetic and fashion related products, development of highly demanded brands along with speed, flexible and reliable delivery are competitive advantages of EU production.

2.1. Technical Textiles

In the textile and clothing sectors 30% of the small and medium size companies (SMES) within EU closed between 2003 and 2005. Mass productions of textiles and clothing caused by globalised large scale retail operations are coming to end in Western Europe and U.S.A. Innovative companies are shifting to the manufacture of technical textiles in order to move forward in a more competitive world. Approximately 190,000 SMES in the textile and clothing sector have realized that their survival depends on adopting innovative products and availing opportunities to work with other sectors.

The trend from commodity items to higher value industrial fabrics and technical textile is growing across Western Europe. A whole range of highly effective technologies for functionalisation of fibre and textile surfaces have been developed recently such as nanotechnology, polymeric coatings, micro-encapsulation, enzyme, plasma, laser, ultra-sound and ultraviolet treatments, spraying and ink-jet printing techniques. By using the new processes and technologies European textiles and clothing companies can develop and produce highly specialized, multi-functional fibre and textile based materials and products which are aimed at niche market segments and consequently escape fierce price competition. Strategic Alliance partners and members of 'Clusters' can develop these capabilities much faster and steer clear of the challenge of low cost imports from developing countries.

3. Textile Industries of Turkey and U.K

Mr. Trevor Rowe examined the competitiveness of textile and clothing sectors of Turkey and U.K. during seven years of research work funded by the E.U. Some of the findings of the studies are reported on the next page:

3.1. Turkish Textile Industry

The small and medium enterprise category (SME) comprises of 40,000 to 50,000 companies in the Turkish Textile Industry which is the backbone of Turkish economy. SME'S in Turkey contribute 10% to the Gross Domestic Product (GDP) and account for 17.50% of the industrial production. The main advantages enjoyed by the Turkish textile and clothing sector are:

- ❖ Low labour cost and skilled work force.
- ❖ Availability of cheap raw-materials
- ❖ Proximity to Europe.

Turkish textile and clothing sector is the second largest supplier to the E.U. which is its main market. China has always been perceived as a threat to Turkey on account of low cost and competitive imports in to the traditional market for the Turkish textile and clothing products.

3.2. Textile Industry of U.K.

After the commencement of WTO with effect from 1st January, 2005 many textile companies dropped apparel manufacture and started production of Technical Textiles. NW England has the largest concentration of Technical Textiles and Composite manufacturing units. The number of such companies is about 500. They have shifted from traditional textile products to the manufacture of Aerospace Textiles and textile based substrates. There are about 5000 companies in NW England in the Textile and Clothing Sector which are now developing 'Composites'.

These companies are in the SME category. About 99% of the companies employ less than 250 workers and about 75% less than 10 workers. Four large universities of NW England are working with companies and providing expertise, research facilities, consultancy, product development and advisory services. In the late 1990's the Regional Development Agency supported a cluster development strategy for the Textile Sector. The main object of the strategy is to find ways and means of improving the competitiveness of the Textile Sector in the global market.

3.3. Formation of Clusters

E.U. has started two projects to facilitate the formation of clusters as follows:

1. Fashion and Textile Cluster (FTC) in Istanbul, Turkey.
2. New Textile Network in NW England.

E.U. is providing funds for both the above mentioned projects. Approximate cost of FTC is £ 15- million. It is a long term project and will be completed in 10 years. The estimated cost of the NW Textile Network in NW England is Euro 12 million and it will be completed in a period of two years.

4. Innotex Project

Innotex is a part of European Innova Project. It is designed to evaluate regional clustering, best practice and support mechanisms in the Technical Textiles Sector. Initially clusters of following four complementary member states have been included in the study:

1. Leicestershire, U.K.
2. Aragon Region of Spain
3. Danish Marine Cluster
4. Estonia

4.1. SWOT Analysis and Innovation

SWOT analysis was carried out the basis of information provided by the project partners. This was compared with the performance of a range of companies within the region on the basis of a sample survey. The findings identified best practices and opportunities for funding, training, supply chain links, innovative ideas, entrepreneurship and market diversification. Innotex Project aims to build a platform for transfer of knowledge and innovation on the basis of comparison of its work with other EU sponsored projects and organizations.

4.2. Dissemination of Information

Innotex Project arranges workshops, exchange visits, seminars and conferences regularly to disseminate in formations and knowledge gained to maximum number of companies involved in the technical textiles sectors and its support bodies to the extent possible. A European database will be available on the Innova Website produces during the 30th month of Innotex Project ending on April, 2008. This will be accessible to potential customers to search for suppliers on a Europe wide basis strengthening the image of the industry.

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ETON automatic fabric handling system at TIP

Abbas Apparel Machinery Company, has installed the ETON work stations at the new apparel lab at Textile Institute of Pakistan. It has taken a step forward in providing hands-on experience of this fully automated material handling system to the university students, who in turn will apply these systems to apparel and textile industry to improve productivity. The facility is also available for the industry to visit and understand the modern manufacturing processes.

The ETON system provides hanged garments to move as per pre-programmed schedules carrying the garment part or fabric to the relevant work station at the most ergonomic pick-up point. Once the operation is completed, the part will be forwarded to the next operator at the click of a button. The system also maintains

required WIP to reduce waiting time. The TIP apparel lab is now equipped with 25 sewing machines, mini fusing machine, cutting table and manual overhead rail system in addition to ETON. TIP Management wishes to extend their thanks to the following donors who also contributed to set up the new apparel lab:

- ❖ **Lucky Tex** who donated six lockstitch machines and three special sewing machines before the commencement of the new lab.
- ❖ **Euro Classic Systems** who donated and installed Qwiktrak overhead rail manual material transport system with two work stations and a loading point for cut panels.
- ❖ **Commodities and Textiles (Pvt) Ltd.** who donated two lockstitch machines.



ETON automatic fabric handling system at apparel lab of TIP.