

**FORMING A CLUSTER STRATEGY FOR  
TEXTILE INDUSTRY DEVELOPMENT IN  
UZBEKISTAN**

DILYAFRUZ NASIRKHODJAEVA, PH. D.

Institute of Economics  
The Academy of Sciences, Uzbekistan**JEL Classifications:** L67, O25**Key words:** Cluster, textile industry, competitiveness, cotton fiber, innovations.**Abstract:** The article confers urgency of establishing clusters in textile industry. Particular focus is given to resource interaction among compound elements of national textile cluster. Policy recommendations targeted to development of cluster in the textile sector of Uzbekistan are provided.

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Being one of the most prospective branches of national economy, textile industry contributes essentially to providing employment and production of industrial and consumer goods. State Joint Stock Company *Uzbekyengilsanoat* (Uzbek Light Industry) currently prioritizes the issues of determining sustainable development strategy, extensive support to enterprises for encouraging foreign investments, creating of new production facilities, technical modernization and upgrade of existing capacities, increase of personnel qualification and promotion of local products in domestic and international markets.

It is well-known that Uzbekistan is the largest cotton producer in the Central Asian region holding 5<sup>th</sup> rank of largest cotton producing countries and second cotton exporter in the world. The importance of textile industry in Uzbek economy can be judged by the following facts: the sector concentrates one-third of industrial workers of the country, it shares 20% of total industrial production volume and over 50% of consumer goods.

There are all preconditions available in Uzbekistan for developing textile industry, including substantial resources of raw materials, mainly high quality cotton fiber, low power supply cost, skilled and cheap manpower, capacity of regional markets etc. Therefore, in order to enjoy competitive advantages of this sector, formation of cluster strategy is required.

Strategically, in the developed countries a cluster is considered as a tool for implementing industrial development policy of the region or the whole country. Also, there are approaches proposing a cluster as a vehicle for enhancing competitiveness of industrial sector. A key aspect of such strategic approaches (Zakharov, 2006) is a final objective, which by-turn, determines the type of cluster (industrial, competitive, innovative).

Cluster development practice in the developed countries reveals that clusters:

- offer privileged and cheap access to specific production factors (e.g. technology, qualified personnel etc.);
- allows to accumulate specific information /knowledge, access to which bears less expenditures;
- ensure complementarity of activities increasing quality and efficiency (Porter, 2000).

In many countries government created conditions for developing clusters, thus providing macroeconomic stability, capacity building, innovations; developing

production and market infrastructure, logistics; supporting SMEs and forming good business environment. In this process, initiatives of local authorities and business community to use efficiently available sectoral or regional competitive advantages played essential role. Such approach has become known as "cluster initiative" that can be determined as "organized attempt to accelerate growth rate and competitiveness of cluster in a certain region by engaging cluster firms, government or research institutes" (Solvell et al., 2003).

Research of cluster initiatives is mainly based upon particular examples or case studies. Denmark, Netherland, Belgium, Canada, Finland, as well as South Africa, France and Italy represent those example countries which have been developed cluster strategies (Tsikhan, 2003). It should be noted, though, that cloning of cluster strategy of some country is not possible. Efficiency of cluster strategy rests on particularities of each country, region and economic sector, which become sources of competitive advantage.

International practice shows that for the developing countries establishing cluster strategy based upon competitive advantages of individual industries becomes increasingly important. Selecting priority economic sectors providing competitiveness both on domestic and international level appears to be an important part. Limited resources of a developing country require focusing on few bearing sectors that have capacity to sustain international competition. These sectors certainly should be leveraged by free market tools, stimulated through institutional and infrastructure conditions created by government.

In Uzbekistan the textile and apparel industries represents those sectors which are labour-intensive, provided with sufficient stock of material resources, developed infrastructure and innovation basis. Successful experience of China, Korea, Turkey and other countries confirms that mentioned industrial sectors should form a foundation for further implementation of cluster strategy.

That assumes interaction between every single structural elements of the cluster in the relation with the cluster's key activities, which is, in this case, textile industry. Apart from that, this model proposes inclusion of the cluster in regional, national and global economy, thus its openness for resource flows from outside.

Resources circulating within the cluster are extremely diverse. Table 1 structures the interrelation between structural components of regional textile cluster in terms of supply, consumption, circulation and transformation of the resources.

TABLE 1. RESOURCE INTERACTION OF STRUCTURAL ELEMENTS IN REGIONAL TEXTILE CLUSTER

Type of resource	Resource components	Supply source	Level and components of interaction	Conditions for better efficiency
Human	Manpower: - workers - specialists - office workers	- labour market including the one inside cluster - universities - colleges - personnel training department of enterprises	- internal environment of cluster - main interaction direction "education infrastructure - textile industry" - interaction with other cluster participants	- more efficient use of manpower requires consolidation of efforts of cluster participants - synergy effect is possible
Material	- plant raw materials (cotton fiber) - raw material of animal origin (silk, wool) - chemical fibers - yarn, dyes, auxiliary substances and materials	- ginning factories - chemical and petrochemical enterprises - textile enterprises	- internal environment of cluster - interaction levels: «raw material suppliers - textile industry»; «auxiliary materials suppliers - textile industry»; inside textile industry by production processes	- more efficient use assumes higher quality of supplies
Facility and equipment	- textile production machinery - technologies - spare parts	- textile machine engineering plants - instrument making plants	- internal environment of cluster - interaction level "supplier of machinery - textile industry"	- long-term established links result in better production planning
Energy	- electricity, heat, steam, water, gas, black oil	- power plants - oil and gas industry	- internal environment of cluster - main interaction level "innovative infrastructure - textile industry" - interaction with other cluster elements	- more efficient use of energy is possible at expense of applied energy saving technologies
Innovation	- know-how - patents - licenses - developments - technologies	- research institutes - design bureaus - scientific production associations - university research divisions - technology transfer offices - techno-parks	- interaction with other cluster elements	- more efficient use of R&D potentials requires consolidation of efforts of cluster participants - synergy effect is possible
Information	- IT - software - services	- telecommunication enterprises - information centers - universities - IT companies	- internal and external environment - interaction level "information infrastructure - textile industry" - interaction with other cluster elements	- more efficient use of information resources requires consolidation of efforts of cluster participants - synergy effect is possible
Finance	- cash - loans - state budget - debt capital	- banks - financial companies - investment funds - government - enterprises	- internal and external environment - interaction level "financial-credit infrastructure - textile industry" - interaction with other cluster elements	- consolidation provides easier access to financial resources due to higher credibility - synergy effect occurs automatically

Source: Prepared by the author

Practical utility of this principle textile cluster model consists of the following facts:

- all interrelations between structural components of textile cluster can be seen;
- functions of each element or units, their importance and role can be determined;
- the cluster itself can be assessed from the point of its completeness taking into account its structure and composition (what elements are excessive or should be added);
- it contains potentials in optimizing the cluster's structure and composition;

Review of studies reveals that the cluster approach to economic development of the country has attracted greater focus last years. Some researchers argue to develop textile holdings (clusters), incorporating production of yarn, fabrics and ready-made garments (CER, 2005). Another group of economists (Alimov et al., 2005) suggest that cotton production complex might serve as core platform for

establishing cluster. It is proposed that several textile clusters should be set up to meet regional conditions and advantages of individual companies, competitively selected.

Based on the peculiarities of national textile sector, the following issues need to be solved to establish cluster policy of the country, namely:

- technical and technological modernization of the sector on the basis of government's target programs of industrial development and public-private partnership in the sector;
- integration of technological chain from raw materials and resources to final products. Development links of textile production should be correlated not only with manufacturing sectors but also agriculture (e.g. selection, agrotechnology, etc.);
- enhancing the growth of clothing industries. Share of clothing industry in textile production is still insignificant. Ready-made products are not still competitive both in domestic and international market.

Therefore, this sector needs substantial technology modernization;

- further manpower development through targeted services of higher educational institutions and vocational education/training;
- development of tolling business operations in textile sector. Consolidation of such operations in activities of regional holdings/associations can induce cluster's inner market and long-term strategic partnership;
- development of logistic networks, sector's trade complexes, commercial and storage terminals, concentration of wholesale and retail trade of textile products at production sites;
- sufficient provision of textile enterprises with quality products of domestic chemical industry;
- fostering innovation processes to match industry's requirements. That needs coordination of innovation activities for full-fledged implementation of scientific potentials, and development of infrastructure of innovative activity.

Thus, realization of competitive advantages in textile and apparel industries requires implementation of cluster strategy considering both positive and negative trends affecting on its formation and development. This approach urges governmental policy aimed at building and further growth of clusters in textile sector.

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