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The Need for Clustering the Industry

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Abstract:

The article discusses theoretical approaches to clusters, their necessity, as well as their positive and negative aspects using methods of system analysis and deduction. It also presents the author's position.

Keywords: clusters, productivity, economies of scale, competitiveness.

INTRODUCTION. One of the key efforts aimed at creating decent living conditions for the population, providing permanent employment, and increasing income is the organization of clusters in agriculture, particularly in cotton growing.

It should be noted that there are several issues within the current, traditional form of cotton farming that prevent it from being effectively organized. Considering this, it is time to transition to new forms of work organization in cotton farming that meet today's requirements and bring greater benefits to both economic entities and the state.

Decision No. PQ-2687 of the President of the Republic of Uzbekistan, dated December 21, 2016, titled "On the program of measures for the development of the textile and sewing and knitting industry for 2017-2021," and Decision No. PQ-2978 dated May 19, 2017, titled "Measures on the creation of a modern cotton-textile cluster in the Bukhara region", initiated practical work on achieving cluster organization. The adoption of these decisions marked the beginning of a new era—the era of clusters in cotton growing, which is one of the leading sectors of the economy.

LITERATURE REVIEW. Now, let's consider the essence and advantages of clusters. The term "cluster" is derived from the English language, meaning "gathering" or "group". This translation alone does not reveal its full significance. The term was first used by Michael Eugene Porter, an American economist, professor at Harvard Business School, and an expert in the study of competitive opportunities. He defined a cluster as an association of geographically adjacent enterprises and organizations that are interconnected, operate in a specific field, and complement each other's work. According to Porter, clusters should have the following common aspects:

- ✓ availability of research institutions;

- ✓ workforce resources;
- ✓ state of competitiveness;
- ✓ affiliation;
- ✓ existence of special educational institutions;
- ✓ availability of special services;
- ✓ adequacy of raw material suppliers;

Economically, a cluster is a group of interrelated organizations (such as enterprises, companies, firms, and higher education institutions) united in certain regions.

According to the definition by Prof. Rahmatov and Academician Zaripov (2018), heads of "VST Cluster" LLC established in Romitan district of Bukhara region, a cluster is a geographically close group of interconnected enterprises. As a result of the stabilization of mutual socio-economic relations, these enterprises increase competitiveness, create opportunities to generate more added value, and improve marketability.

Manukyan (2018) defines a cluster as a structural group of enterprises, firms, and organizations with a single coordinating center, jointly implementing business projects, and effectively using company resources for a common goal.

In our opinion, clusters are structures consisting of similar or related growing (preparation), manufacturing, and service economic entities located in close proximity to each other. The purpose of their establishment is the production of finished products with high added value based on the integration of production, infrastructures (education, consulting, certification, etc.), and other services within a single technological chain. It is essential to ensure that the technological chain, from the preparation of raw materials to the production of finished products, is under unified control.

RESEARCH METHODOLOGY. The article employs traditional research methods, namely systematic analysis, deduction, observation, and comparison. The illumination of the positive and negative aspects of clustering, and the theoretical analysis of their influence on activity efficiency are based on induction and deduction methods. Additionally, analysis was conducted using a table, and recommendations were provided based on its conclusions.

DISCUSSION AND RESULTS. If problems accumulate in economic activities, production productivity decreases, and the financial indicators of the enterprise fall. When there are few opportunities to eliminate these issues with current forms of economic management, it becomes necessary to switch to new forms that are appropriate and specific to the needs of the times, enabling the production of competitive products. Unfortunately, today there are several problems in the cotton industry that hinder its effective operation.

First of all, the financial situation of cotton farmers is unstable. The main reason for this is the unprofitability of their activities. No objective indicators have been developed to assess the financial status of cotton farms, and continuous analysis of current indicators is not carried out by these farms.

Secondly, there is no effective solution to the employment problem within the sector. Due to the seasonal nature of work in cotton farming, employment in this industry cannot become a permanent source of income for employees.

Thirdly, despite daily fluctuations in world market prices, we cannot say that product prices are effectively determined in advance by the main buyer. This situation limits the ability to compensate for changes in certain expenses of farms during the season due to price increases.

Based on simple calculations, we can make the following statement: The average productivity in cotton farming, which accounts for almost half of the gross agricultural products, is 19.6 centners. Even if a farmer who works on one hectare of land all year manages to sell high-quality cotton at 4 million soums per ton, they would earn a gross income of 8 million soums. With this amount of income, how much and how many months can the worker be paid? Considering the funds spent on agrotechnical measures, fuel and lubricants, mineral fertilizers, etc., how much profit can be made? The answer to this question will show the financial status of economic operators in the cotton sector of agriculture.

Economic and financial indicators and the efficiency of economic operators in production complexes organized as clusters are much higher. Interests are aligned in clusters, allowing for the redistribution of values. All enterprises related to the production and sale of high-quality export-ready products, starting from the planting of cotton seeds, are united under one management. All participants work towards the same goal. In cotton-textile clusters, it is possible to compensate for losses caused by low yields due to natural factors through the contributions of other branches of the cluster.

It has been confirmed that labor productivity is 1.5 times higher, and wages are 30 percent higher in enterprises of clustered regions.

Table 1. Some indicators in the cotton industry of Turkey and Uzbekistan

Countries	Cotton raw material productivity ts/ha	Crop area thousand	Gross of fiber by volume place	Productivity place on
Turkey	37.4	320	7	3
Kyrgyzstan	28.4	41	35	8
Uzbekistan	19.6	1313	6	16

Despite the fact that Uzbekistan's agricultural output is 4.3 times larger, it is ten times less than the figures of the Netherlands, one of the most developed countries in Europe.

Additionally, it can be observed that Turkey, which has a high level of clustering in the cotton-textile and light industry, has almost twice the productivity indicators of cotton production compared to Uzbekistan.

From the data in Table 1, it can be seen that the area of cotton cultivation in Turkey is 320 thousand hectares, while in Uzbekistan, this figure is four times larger at 1,313 thousand hectares. Despite this, Turkey ranks 7th in the world in terms of the total volume of processed fiber, while Uzbekistan ranks 6th, only one step higher despite having four times the area. The main reason for this can be explained by the significant difference in productivity between our countries in cotton cultivation. In Turkey, 37.4 quintals of raw cotton can be harvested from each hectare of land, while in Uzbekistan, this figure is 19.6 quintals.

The financial capabilities of economic entities operating in the cotton industry do not allow the use of efficient technologies in agriculture or the latest techniques in tillage and harvest. Clusters have such opportunities because they can allocate a certain part of the added value created in the deep processing of raw materials to cotton cultivation, which is the starting point of the activity, and implement the latest scientific achievements in this regard.

In general, the following positive aspects of clusters can be pointed out:

1. Using the "scale effect" to reduce production costs: Clusters provide a broad range of opportunities for reducing production costs.

2. Simultaneous cooperation and competition: Cooperation and competition among participants lead to increased production rates and improved competitiveness.
3. Increased production productivity: Proximity and integration into a single management structure speed up the exchange of products and information, boosting productivity.
4. Enhanced communication: Good communication accelerates the spread of innovations among participants, indicating a high tendency towards innovation.
5. High production productivity and commissioning of new capacities: This allows for the elimination of inefficient joints.

However, the following negative aspects are also characteristic of clusters:

1. High labor costs: Introducing advanced techniques and technologies into production requires hiring qualified personnel, which leads to higher tariff rates. To ensure regular income for employees involved in raw material cultivation within cotton clusters, a portion of the added value from deep processing stages may need to be directed to cotton growers (this represents the social efficiency of the cluster).
2. Over-specialization issues: Excessive specialization in a specific field can make it difficult to solve problems outside of that specialization. Therefore, top management leaders must ensure the establishment of mutual relations with the external environment and industry enterprises outside the cluster.

Third, large-scale clusters have advantages in competition with enterprises that are not part of them. In our view, this undermines a healthy competitive environment and ultimately results in clusters "swallowing up" small businesses.

Taking into account the listed positive and negative aspects, we believe that the following measures should be taken when organizing the work of clusters:

- ✓ establish technical and economic norms to prevent the excessive growth of clusters.
- ✓ conduct continuous in-depth analysis to determine the causes of any slowdown or interference in activity.
- ✓ create an open information base related to the organization of clusters and their general activities.
- ✓ study the in-depth experience of foreign countries in the organization of industry clusters.
- ✓ open courses in higher educational institutions that prepare qualified personnel for clusters.
- ✓ constantly conduct exhibitions and presentations that promote cluster activities and assist in product realization.

CONCLUSIONS AND SUGGESTIONS. In conclusion, clusters today are structures that provide a new impetus to the economy, increase efficiency in industries, boost labor productivity, accelerate the introduction of innovations, enhance the competitiveness of finished products, and help address social problems to some extent. While clusters have many positive aspects, there are also negative aspects that require attention and solutions. Taking the above-mentioned functional measures will reduce the impact of negative aspects and help clusters function effectively.

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