

Assessment of Manufacturing Process Management Efficiency in Textile Cluster

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Abstract- In this paper has been proposed assessment of manufacturing process management efficiency in textile cluster.

Keywords: Production, textile products, assessment, manufacturing process, cotton, textile, export.

1. INTRODUCTION

It is proposed to improve existing innovative methods and methodological approaches to evaluate the efficiency of economic activity of textile cluster systems by the world's leading scientific research institutes. The scientific directions of improving the export potential management mechanisms of textile clusters include the transition from the "cost management" paradigm to the "results management" paradigm, the use of economic-mathematical modeling and extensive forecasting methods, the introduction of digital technologies to improve the management efficiency of textile clusters, and create a unified information environment in the textile industry.

2. METHODS

It is known that by forming a complete value chain, attracting innovative technologies and entering world markets, cluster initiatives allow to increase the efficiency of the development of economic sectors, which should increase the competitiveness of manufactured products and use comparative advantages.

Methodological approaches to assessing the competitiveness Nazarov Sh. O.[1], Filiptsov A. [2], Yusupov Yu., Naumov Yu.[3], Sukhikh D.G., Kats V.M.[5], Sychev A.V.[6], Beloglazova S.A.[7], Umarova, G., Yusupov, S.[8], Burkhanov, A. U.[9], Yuldashev N.[10] were investigated.

The priority task in this regard is to form "points of increase in production volume" in the regions. The implementation of this task is based, first of all, on the organization of clusters based on prospective specialization, the high potential of the region in the field of introducing techniques and technologies, which will later ensure the release of products to the world market. The creation of cluster structures in the form of the organization of production along the value added chain based on the identified indicators should be focused not only on increasing the competitiveness of products, but also on ensuring synergistic effects for expanding the scale of industrialization.[1]

Competitiveness indicators are used to identify regional differences and to assess the competitive advantages of the production of a particular product.[4]

The coefficient of product competitiveness determined by price comparison is calculated according to the following formula:

$$K_{ij} = \frac{\text{Ич.ЎН}}{\text{ИН+ББ+ҚҚС}}, \quad (1)$$

where K_{ij} – j-state i-product type competitiveness coefficient;

Ич.ЎН – j-state average price of i-product type producers;

ИН – the price of the i-product type imported at the border of the j-state;

ББ – Customs entry duties on the i-product type imported at the j-state border;

ҚҚС – value added tax on the i-product type imported at the border of the j-state.[2]

The smaller the value of the coefficient, the more competitive the product is.

The disadvantage of this coefficient of competitiveness is that the interpretation of competitiveness as "the cheaper the better" does not consider the competitiveness of the manufacturer, who can sell his products at a higher price than competitors. A price advantage does not always correspond to a cost advantage, as a rule.

3. ANALYSIS AND RESULTS

World experience shows that it is possible to achieve significant development of the textile industry in a relatively short period of time by using its competitive advantages and creating a favorable investment environment. For example, in 1954-1983, the coupon system of clothing distribution was in effect in China. Large-scale reforms

implemented since 1978 served to significantly increase the volume of clothing production and export. In 1978, the export of clothing in China was 0.7 billion. US dollars, 1990 - 6.8 billion. US dollars, 1995 - 24.0 billion. US dollars, 2008 - 185.2 billion. amounted to US dollars.

In 1980-81, the income from the export of ready-made clothes in Bangladesh was 3.3 million. 1.2 billion from US dollars in 1991-92. US dollars and 12.1 billion in 2008. increased to US dollars. Export of textile products in India was 5.1 billion in 1990-91. US dollars, 8.4 billion in 1995-96. US dollars and 22.4 billion in 2008. amounted to US dollars. Export of Turkish textile products in 1979 was 595 mln. 23.6 billion from US dollars in 2008. increased to US dollars. [3]

In 2020, Uzbekistan was included for the first time in the UNIDO Industrial Competitiveness Index (CIP), which evaluates the ability of countries to produce and export goods of the processing industry. Here, Uzbekistan took 92nd place among 152 countries (Table 1).

Table-1 Competitiveness index (SIP) of the industry of former Soviet countries in 2018-2020 [4]

Country name	2020 y.		2018 y.		Change (place)
	152 Country place	points	150 Country place	points	
1. Russia	32	0,097	32	0,1047	-
2. Belarus	47	0,063	47	0,0657	-
3. Kazakhstan	68	0,035	69	0,0371	+1
4. Ukraine	69	0,035	64	0,0407	-5
5. Uzbekistan	92	0,017	Recently added		
6. Armenia	103	0,012	99	0,0120	-4
7. Moldova	111	0,01	110	0,0097	-1
8. Azerbaijan	120	0,008	107	0,0101	-13
9. Kyrgyzstan	122	0,008	124	0,0066	+2
10. Tajikistan	129	0,005	133	0,0035	+4

Despite the rather low indicators of the competitiveness of Uzbekistan's industry, as estimated by the United Nations Industrial Development Organization (UNIDO), local economists reasonably believe that Uzbekistan's textile industry is export-oriented compared to other sectors, and that Uzbekistan is ready to join the World Trade Organization.

Many scientific publications give the following most general definition of export potential: it is the volume of competitive products that can be produced and sold by economic entities in the current market conditions. [5]

The data of Table 2.6 shows that the export potential of the textile industry of Uzbekistan has increased significantly in the period from 2016 to 2021. The introduction of the form of clusters of organizations in Uzbekistan will coincide with the end of 2016 and the beginning of 2017. High growth of export potential Namangan region (7-fold increase) and Surkhandarya region (8-fold increase) was observed.

Table-2 2016-2021 export potential of textile industry in regions of Uzbekistan in years

№	Regional	Export potential, mln. US dollars.		Growth, %
		2016 y.	2021 y.	
1.	The Republic of Karakalpakstan	6,1	34,6	+467,2
2.	Andijan region	109,8	327,9	+198,6

3.	Bukhara region	62,6	79,1	+26,4
4.	Zhizdra	32,8	80,2	+144,5
5.	Kashkadarya region	15,7	62,1	+295,5
6.	Navoi viloyati	0	49,7	-
7.	Namangan region	24,9	209,7	+742,2
8.	Samarkand region	14,8	85,8	+479,7
9.	Surkhandarya region	10,1	73,4	+626,7
10.	Syrdarya region	11,8	41,4	+251,6
11.	Tashkent region	159,5	210,7	+32,1
12.	Ferghana region	212,2	249,1	+17,4
13.	Khorezm region	21,1	83,5	+295,7
14.	Tashkent Sh.	181,9	298,4	+64,0

The internal export potential of the enterprise includes the set of resources necessary for the production of products for export. These include natural, labor, material, financial and informational resources.

Table-3 Export potential of the cluster

Internal export potential		External export potential	
Calculation formula	Economic interpretation of the indicator	Calculation formula	Economic interpretation of the indicator
$K_{pk} = \frac{OF}{EMT} \cdot 100\%$	The profitability indicator of the exported product reflects the efficiency of product sales per unit of money sold	$K_{нисбат} = \frac{ЭМИХ}{ЭМСХ} \cdot 100\%$	The coefficient of the ratio of export product production volume to sales volume reflects how efficiently the product is exported
$K_{ир} = \frac{ЭСФ}{AB + HA + Z} \cdot 100\%$	Return on assets production shows how much profit is generated by each unit of money spent on the production of textile products.	$K_{срк} = \frac{OF}{ЭСТ} \cdot 100\%$	Export sales reflect the profitability index, the efficiency of sales of export products and the share of profit from revenue
$K_{кувват} = \frac{ЭМИХ}{ИҚ} \cdot 100\%$	The production program of the enterprise and the coefficient of production capacity describe the maximum production possibilities and the share of their utilization	$K_{марк} = \frac{ЭММХ}{ЭМТ} \cdot 100\%$	Marketing expenditure estimates the share of marketing expenditure on export products

OF - profit from sale, EMT - cost of export product, ESF - profit from sale of export product, AV - fixed assets, NA - intangible assets, Z - reserves, EMIX - production volume of export product, IQ - production capacity, EMSX - volume of export product sales, EST - income from export sales, EMMX - export product marketing expenses

The external export potential of the enterprise is related to the sale of competitive products and is provided by the enterprise's marketing, logistics and service activities. [6]

With a high foreign export potential, the level of competitiveness of the enterprise increases significantly, as its products begin to be sold in international markets. [7]

Calculation of internal and external potential can be carried out based on the assessment of the importance of indicators or using methods of correlation analysis:

$$K_{ички} = \sqrt[3]{K_{pk} \cdot K_{ир} \cdot K_{кувват}} \quad (2)$$

$$K_{ташқи} = \sqrt[3]{K_{нисбат} \cdot K_{срк} \cdot K_{марк}} \quad (3)$$

The integrated indicator of the cluster export potential assessment has the following form (with an assessment of its internal and external potential):

$$K_{экс салоҳият} = K_{ички} + K_{ташқи} \quad (4)$$

In order to determine the competitiveness of manufactured and exported products, it is appropriate to determine quantitative and structural indicators (Table 4)

Table-4 Export product competitiveness indicators

Quantitative indicators	Structural indicators
Volume of export sales	The share of products certified according to international standards
Export profit	Innovative product share
Cost of export product	Export product profitability
Export product unit price	Share of exports in sales

In order to evaluate the efficiency of production processes in textile clusters, we calculate the coefficients of localization, production per capita and specialization of production in the regions of Uzbekistan.

Localization coefficient (LC) describes the level of development of the industry and its importance for the regional economy. It is defined as the ratio of the share of this sector in the production structure of the region to the share of this sector in the country:

$$MK = (O_p/P_p) : (O_c/P_c), \quad (2.7)$$

where: O_r - production volume of a separate branch of regional industry;

P_r - all industrial production in the region;

O_s - the production volume of a separate industrial sector in the territory of the country;

P_s - all industrial production in the country.

As an alternative method of calculating the localization coefficient, it is possible to use the ratio of the share of people employed in a particular branch of the region in the total number of employed persons in the region to the share of persons employed in a particular branch in the total number of employed persons in the country.:

$$MK = (Z_p/E_p) : (Z_c/E_c), \quad (5)$$

where Z_r - the number of people employed in a separate branch of the regional industry;

L_{and} - the number of people employed in the region;

Z_s - the number of people employed in a particular branch of industry in the territory of the country;

E_s is the number of people employed in the country.[8]

The production coefficient per capita is calculated as the ratio of the share of the regional network in the relevant structure of the country's industry to the share of the region's population in the country's population. This ratio can be studied as the "comparative productivity" of the industry in the region:

$$K_{ax.j} = (O_p/O_c) : (H_p/H_c), \quad (6)$$

where O_r - production volume of a separate branch of regional industry;

O_s - volume of production in a separate branch of industry in the territory of the country;

N_r is the population of the region;

N_s is the population of the country.

The coefficient of specialization of the region in a certain field is determined as the ratio of the share of the production volume of the regional network in the production volume of the relevant industry in the country to the share of the regional GDP in the country's GDP:

$$K_{и} = (O_p/O_c) : (ЯИМ_{минт}/ЯИМ_{мам}), \quad (7)$$

where O_r - production volume of a separate branch of regional industry;

O_s - the volume of production of a separate branch of industry in the territory of the country;

GDP - gross domestic product of the region;

GDP is the country's gross domestic product.

Calculation of the above coefficients allows to determine the level of development of the network and its importance for the regional economy (Figure 2.16). Based on the calculation of the mentioned coefficients, the analysis of the structure of the economic complex of the region is carried out in order to determine the efficiency, stability, and competitiveness of the regional economy in terms of the reproduction process, economic growth in the region. He showed that textile production processes are carried out most efficiently in Syrdarya and Namangan regions.

The above coefficients have a number of shortcomings (in particular, they do not always reflect the real value of the level of specialization in the region and do not take into account the size of the regional economy). In this regard, foreign scientists suggest calculating the semi-logarithmic localization coefficient:

$$K_{лог} = \frac{O_p/P_p}{O_c/P_c} \times (\log_2(1 + \frac{E_p}{E_c}))^\delta \quad (8)$$

or

$$K_{nlog} = \frac{3_p/E_p}{3_r/E_r} \times (\log_2(1 + \frac{E_p}{E_r}))^\delta \quad (9)$$

where δ – parameter specifying the degree to which the default localization coefficient is adjusted for region size and interregional trade volume, ($0 \leq \delta < 1$).

A study of foreign experience concluded that a lower value of δ is required to provide satisfactory estimates for regions with low gross domestic product as a share of GDP.[8]

The author divided the regions of Uzbekistan into five groups using the method of statistical grouping according to the share of GDP in the GDP and proposed the following method of selecting the parameter d (Table 5).

Table-5 Selection of parameter d based

on the share of GDP in GDP NP (%)	δ
0-2	0,1
2-3,2	0,15
3,3-6,0	0,2
6,1-15,0	0,25
>15,0	0,3

6- the table shows δ values for the regions of Uzbekistan:

Table-6 Values of δ parameter for regions of Uzbekistan, 2020 y.

№	Regions	Share of GDP in GDP, %	δ
1.	Republic of Karakalpakistan	3,643	0,10
2.	Andijan region	6,395	0,20
3.	Bukhara region	5,232	0,15
4.	Jizzakh region	3,012	0,10
5.	Kashkadarya region	5,976	0,20
6.	Navoi region	8,255	0,25
7.	Namangan region	4,631	0,15
8.	Samarkand region	7,275	0,20
9.	Surkhandarya region	4,134	0,15
10.	Syrdarya region	2,136	0,10
11.	Tashkent region	10,770	0,30
12.	Fergana region	6,242	0,20
13.	Khorezm region	3,587	0,10

Table 7 shows the values of standard and modified localization coefficients for the regions of Uzbekistan in 2020.

Table-7 Values of coefficients of localization of textile production for regions of Uzbekistan, 2020

№	Regions	Coeff.	log*
1.	Republic of Karakalpakistan	0,799	0,002
2.	Andijan region	0,318	0,154
3.	Bukhara region	3,603	0,291
4.	Jizzakh region	1,016	0,594
5.	Kashkadarya region	2,714	0,092
6.	Navoi region	0,000	0,000
7.	Namangan region	3,922	0,155
8.	Samarkand region	2,064	1,333
9.	Surkhandarya region	3,074	0,021
10.	Syrdarya region	5,175	4,035
11.	Tashkent region	0,105	0,045

12.	Fergana region	0,008	0,003
13.	Khorezm region	1,200	0,004

When calculating the modified coefficient of localization of production, the relative size of the regional economy is not taken into account, but the relative size of the industry at the national level is taken into account. It is these sectors that are the most promising sectors in terms of formation and development of clusters.

It can be seen that the textile industry is of strategic importance for the development of the economy of Uzbekistan. Its large raw material base, the labor intensity of light industries, the presence of a relatively large market in neighboring countries make the development of the textile and clothing industries in Uzbekistan one of the potential growth drivers. Highlighting this potential and forming a strong textile and sewing industry in the country is one of the priorities for the development of the national economy.

We analyze the economic efficiency of cluster structures based on "RealTex TASHKENT" LLC and "OKSAROY KLUSTER" LLC.

"RealTex TASHKENT" LLC is one of the largest textile clusters in Uzbekistan. The enterprise operated under the name "Kukcha Tekstil" until September 2020. The new founders have registered a new enterprise under the name "RealTex TASHKENT" LLC since October 2020.

The plant is now fully modernized and equipped with the latest high performance equipment. To date, "RealTex TASHKENT" LLC produces 22,000 tons of yarn, 6.1 mln. cubic meters of raw gas and 30 mln. It has the capacity to produce more than 100,000 cubic meters of finished gas. 79.5 percent of yarn production is used.

The latest equipment manufactured by the Japanese company Toyota is installed in textile production. Today, the textile industry is able to produce 260 types of fabrics with a width of 15 cm to 160 cm. Daily fabric production is 10-12 thousand pagon meters. The finishing and painting departments of the enterprise are equipped with the latest equipment from Turkish, Italian and Japanese companies.

Currently, more than 1450 people work in the enterprise. Workers are brought daily by service buses from Parkent, Pskent, Chinoz, Boka, Upper Chirchik, Orta Chirchik, Alimkent, Zarkent, Okhangaron districts of Tashkent region. In the future, it is planned to continue the modernization and expansion of the enterprise, to establish an oil plant, a livestock complex, thereby creating 1,200 jobs, and doubling the export potential.

Over the past four years, the volume of products produced by LLC has been steadily decreasing, but most of the products were exported (Figure 2.18).

During the researched period, the company's capital did not change and amounted to 15 million soums. However, in 2020, net profit increased by more than 3 times, which affected the profitability of the company. At the beginning of 2021, compared to the same period of 2020, the profitability of production funds increased significantly due to the increase in the profit from sales and the cost of fixed assets.

The analysis of the data of "OKSAROY KLUSTER" LLC showed that despite the crisis changes in the economy due to the coronavirus pandemic, positive trends (increase in the share of long-term liabilities, finished products and overall profitability) were observed in the company's activity in 2020. This may be related to increased state support for textile clusters and the textile industry in general in Uzbekistan..

According to local experts, the attention paid to the development of textile and sewing-knitting production by the leadership of our country, as a result of support in the form of tax preferences, preferential loans, and subsidies, the sector has become more attractive for investment. For example, according to the information of the "Uztoqimaliksanoat" association, if 190 million US dollars were invested in 2016, by the end of 2020 their volume will increase by 2.5 times to 473.9 million US dollars.

More than 80% of attracted foreign investments are contributed by countries such as South Korea, Switzerland, Singapore, Great Britain, Germany, India and Turkey. The pandemic has slowed investment activity in the textile and clothing industry, but the flow of investment has not stopped.

4. DISCUSSION OF RESULTS

The rapid development of the industry was observed together with the creation of jobs and an increase in the employment of the population. According to the information of the association "Uztoqimaliksanoat", the number of people employed in the textile and clothing industry has increased by almost 19% over the past four years, reaching 366,900 people.

The priority directions of the development of the industries under consideration are the further development and expansion of the export potential, the increase in the volume of exports, and the diversification of the foreign markets

of local textiles and clothing products. According to the data of the State Statistics Committee, the export of textile and sewing and knitting products increased by 15.4% (up to 1.7 billion US dollars) in the 11th month of 2020. In 2020, compared to 2016, the export volume increased 1.8 times.

The policy of increasing the export of finished products with high added value is also bearing fruit. For example, the export of ready-made knitwear and sewing products increased by 2.1 times during the period under review. Currently, more than 563 types of textile products are exported to 69 countries of the world, and in 2018, 348 types of textile products are exported to 57 countries.

In many countries, cluster policy is based on promoting dialogue and interaction between the scientific community, business and government. It is aimed at scientific organizations to implement inventions on the orders of business, and the state assumes a coordinating role by allocating grants for research based on the determination of priorities and the study of business needs. Research results are presented to enterprises. Also, in some cases, the state subsidizes the purchase of licenses and patents.

Table-8 Information about the activities of clusters in the Tashkent region and the whole of Uzbekistan, 2018-2020

years	Republic of Uzbekistan	Export of textile products across Uzbekistan	Tashkent region	Export of textile products in Tashkent region
	Y ₁	X ₁	Y ₂	X ₂
2018	47	1 300 262,10	3	154 094,00
2019	117	1 626 918,90	9	198 983,70
2020	420	1 922 359,50	21	247 572,60

Analyzing statistical data on the activity of clusters in Tashkent region and Uzbekistan as a whole, in order to determine whether there is a correlation between them.

Calculated using Eviews 9 software.

table-9 Correlation table between textile clusters and export potential

	X201	Y1
X201	1.000000	0.948196
Y1	0.948196	1.000000

As can be seen from the correlation table between textile clusters and export potential, there is a strong correlation (0.94) between (Y1) the number of clusters operating in the Republic of Uzbekistan and (X1) the volume of export of textile products in Uzbekistan.

As can be seen from the table of correlation between textile clusters and export potential, there is a strong correlation (0.97) between (Y1) the number of clusters operating in Tashkent region and (X1) the volume of export of textile products in Tashkent region..

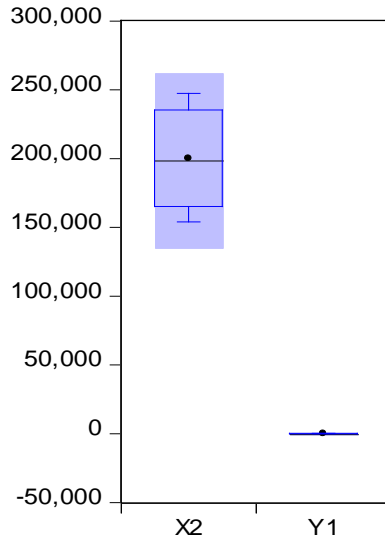


Figure 1. Correlation between textile clusters and export potential Box plot

Table-10 Correlation table between textile clusters and export potential

Covariance Analysis: Ordinary		
Date: 11/19/22 Time: 11:16		
Sample: 1 3		
Included observations: 3		
Correlation		
Probability	X2	Y2
X2	1.000000	

Y2	0.976096	1.000000
	0.1395	-----

Correlation between textile clusters and export potential is shown in the box plot..

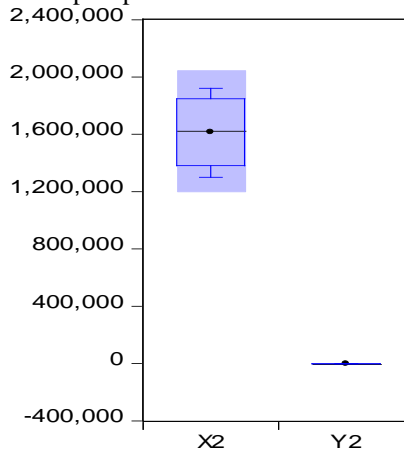


Figure 3. Correlation between textile clusters and export potential Box plot

According to modern local researchers, the export potential of the textile industry of Uzbekistan is largely affected by factors such as the lack of a database of export-oriented goods, transport operator activities, customs procedures

(officialization), and product certification..

In most cases, barriers to exporting goods include monopoly, lack of online openness, insufficient competition in the transport sector, and bureaucracy. In this regard, it is proposed to develop competition between operators, expand the influence of operators in the world transport market, form modern national operators and create an online trading platform that serves the transportation of goods of export-oriented textile clusters, which should enter the commodity base of any country in the world and conclude direct contracts. will be done.

As a result of the analysis of the main elements of the clustering of the regions of Uzbekistan, it is possible to determine the strengths and weaknesses of the textile industry and create a SWOT analysis matrix

Table-11 Economic potential of clustering for the regions of Uzbekistan SWOT-analysis matrix

	S (strengths)	W (weaknesses)
Indoor environment	<ul style="list-style-type: none"> - Significant structural changes have also occurred in the production of textiles and clothing products: a transition from the sale of low-processed primary products to the production of highly processed products and the sale of finished products; - The export potential of the textile industry of Uzbekistan has begun to develop, there are huge opportunities for further growth; - creation of stable jobs that help to increase social protection and incomes of the population 	<ul style="list-style-type: none"> - financial barriers to purchasing expensive production equipment; - weak connection of clusters with scientific and educational institutions; - low profitability in the organization of technological equipment and production; - lack of development of laboratory system equipped with modern equipment for certification and standardization of textile products.
	O (opportunities)	T (threats)
External influence	<ul style="list-style-type: none"> - the global market conditions almost correspond to the comparative advantages of Uzbekistan, which can be turned into a competitive advantage of the textile industry; - the textile and clothing industry, which has a large labor capacity, has the ability to create mass jobs. 	<ul style="list-style-type: none"> - low degree of diversification of the geography of export of textile industry products; - the weakness of the system of promoting export enterprises, the high level of the tax collection system; - low level of competitiveness of textile enterprises; - low rate of introduction of advanced innovative technologies.

Analyzing the main elements of the clustering of the regions of our country in the SWOT-analysis matrix, we can see that the global market conditions almost correspond to the comparative advantages of Uzbekistan, which can be turned into a competitive advantage of the textile industry, that the textile and clothing industry, which has a large labor capacity, has the ability to create mass jobs, and the various functional areas within the cluster it was determined that there is a possibility to use the potential of the structures to the maximum extent. Also, weak links of clusters with scientific and educational institutions and lack of development of a laboratory system equipped with modern equipment for certification and standardization of textile products are weak points of clustering.

It can be concluded from the researches that it was found that the textile and clothing industry, which has a large labor capacity, has the ability to create mass jobs, and that it is possible to use the potential of various functional structures within the cluster to the maximum extent. In addition, it is necessary to further strengthen the connection of clusters with scientific and educational institutions and increase the level of use of textile product certification and export potential of textile clusters by forming a laboratory system equipped with modern equipment for textile product certification and standardization in cooperation with internationally recognized companies.

5. CONCLUSIONS

The proposal to organize and expand various functional structures within the cluster in directions that allow maximum use of the existing potential was justified.

1. The introduction of cluster initiatives in the textile industry of Uzbekistan allows to increase the share of finished products, to increase its competitiveness in the domestic and foreign markets, to increase the filling of the state budget revenue base, and to increase the employment and income of the population. On the other hand, the study made it possible to identify a number of problems in the management of the export potential of textile clusters in the Republic of Uzbekistan, which can be divided into two groups:

- the low competitiveness of textile products in the world market and the low level of geographical diversification of textile exports..
2. According to the results of the analysis of the textile industry in Uzbekistan, it is possible to propose a complex of organizational and economic measures aimed at developing the existing competitive advantages of the country's textile industry and creating additional value. These events are divided into 5 blocks:
 - increasing the effectiveness of the management of textile clusters in the country, including working with new markets, increasing the share of state purchases, introducing new brands;
 - to improve the access of textile manufacturers to the sales markets, to expand the types of goods exported in the existing foreign markets and to introduce them to new markets, to support the export of the republic's textile products to the regions of Uzbekistan;
 - conducting an analysis to assess the level of competitiveness and localization in order to determine comparative advantages in the textile market;
 - increasing labor productivity due to the increase in the number of ITTKI and innovations in the textile industry, using opportunities to attract funds from international financial organizations and institutions;
 - development of missing or underdeveloped links of the chain, which allows to increase the efficiency of cluster structures (strengthening the analysis of economic efficiency of the cluster and marketing research).
 3. The export potential of the textile industry of Uzbekistan increased significantly in the period from 2016 to 2020. The introduction of forms of clusters of organizations in Uzbekistan coincides with the end of 2016 and the beginning of 2017. A high increase in export potential was observed in Namangan region (7-fold increase) and Surkhandarya region (8-fold increase). In order to evaluate the efficiency of production processes in textile clusters, localization, production per capita and production specialization coefficients were calculated in the regions of Uzbekistan. As a result of the study of foreign experience, it was found that in order to provide satisfactory estimates for regions with a low share of gross regional product in GDP, a lower value of the parameter determining the degree of adjustment to the standard localization coefficient by the size of the region and the volume of interregional trade is required. Based on the calculation of the proposed export potential and localization coefficients, the analysis of the structure of the economic complex of the region is carried out in order to determine the efficiency, stability and competitiveness of the regional economy in terms of the reproduction process, economic growth in the region..
 4. According to the results of the research, as we can see from the correlation table between textile clusters and export potential, there is a close relationship (0.94) between (Y1) the number of clusters operating in the Republic of Uzbekistan and (X1) the volume of export of textile products in Uzbekistan. As can be seen from the table of correlation between textile clusters and export potential, there is a strong correlation (0.97) between (Y1) the number of clusters operating in Tashkent region and (X1) the volume of export of textile products in Tashkent region. The impact of the organization of textile clusters on the export potential was determined, and it was proposed to organize and expand various functional structures within the cluster in directions that allow maximum use of the existing potential.

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