

Manufacture of Textile Products Compliant with Foreign Requirements on the Basis of ISO Standards Get Organized

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Abstract: In this article, the issues of organizing the production of exportable textile products based on ISO standards are studied, in which the introduction of the requirements of ISO 9000 international standards, the model of the quality management system based on the process approach, and the sequence of technological processes are considered.

Keywords: Export textile products, ISO standards, process approach, quality management system, sequence of technological processes, technical parameters.

INTRODUCTION.

Since September 2016, 9 regulatory documents have been issued in order to fully satisfy the demand of the population of the republic and foreign consumers for textile and sewing-knitting products, to supply quality guaranteed products to the consumer market, to deepen economic reforms in industry sectors, to rapidly develop the industry and to provide it with qualified personnel. , including 2 Decrees, 4 Decisions and 1 Order of the President of the Republic of Uzbekistan, 2 decisions of the Cabinet of Ministers.

Also, specific programs for the development of the network have been developed. In particular, in the Decree of the President of January 10, 2023 No. PF-2 "On measures to support the activities of cotton-textile clusters, radical reform of the textile and sewing-knitting industry, and further increase the export potential of the industry", gauze, knitted fabric and to the Export Support Fund under the Export Promotion Agency, based on its order, to provide enterprises exporting ready-made sewing and knitting products with working capital on a continuous basis, including revolving credit Funds in the amount of 100 million US dollars in 2023 and 150 million US dollars in 2024 are set to be allocated from August 2024 to January 1, 2026 at an annual rate of 4 percent [1].

Analysis and discussions.

It can be seen that the production of textile products that meet the requirements of foreign markets is not only beneficial for the manufacturing entrepreneur, but also leads to the inflow of foreign currencies into our country and further development of our country's economy in general.

Currently, a sustainable development strategy has been developed as a single complex for the processing of cotton raw materials, the production and export of finished products with high added value, including

5	ISSN 2576-5973 (online), Published by "Global Research Network LLC" under Volume: 6 Issue: 12 in Dec-2023 https://globalresearchnetwork.us/index.php/ajebm
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the expansion and support of industrial cooperation, and research on the domestic and foreign markets of textile products.

The volume of production of industrial products of network enterprises in the strategic program of network development in 2019-2030 ***By 2030, its share in the republic's gross domestic product is set to be more than 15%, that is, to ensure an annual growth of the industry by 15-18% .*** For this purpose: strengthening of marketing services, improvement of design works, mastering of types of products that will please domestic and foreign customers and increasing their production volume, creation of modern capacity for deep processing of cotton fiber, production of gauzes, knitted fabrics, increase of dyeing and finishing capacities. caught.

Based on the tasks defined in the strategic program of network development, it is very important to organize the production of exportable textile products in accordance with the demand of foreign markets.

The introduction of the quality management system is one of the main conditions for organizing the production of exportable textile products [4].

The implementation of the requirements of ISO 9000 international standards also allows to achieve significant internal results, including [3]:

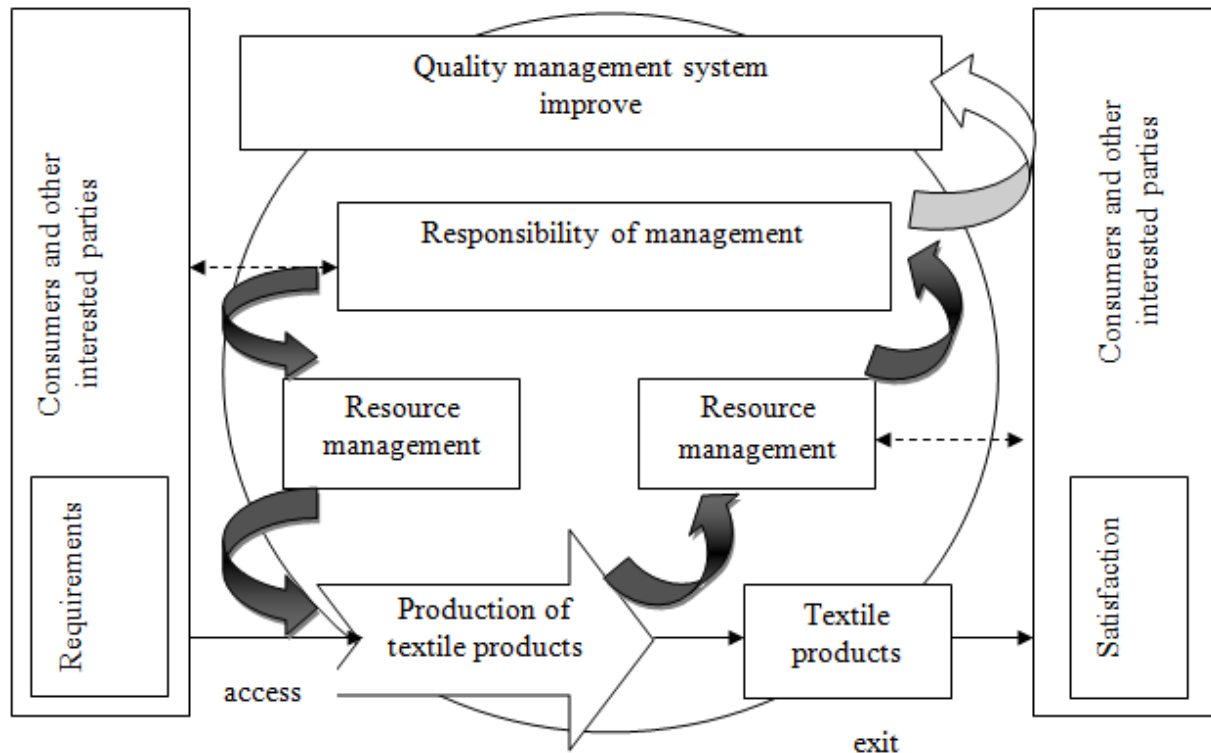
- increase in efficiency of activity management;
- creating transparency of activity;
- prevention of mistakes and shortcomings in operation and reduction of unjustified costs;
- optimization of business processes.

In order to increase the competitiveness of textile products, after the adoption of ISO 9000 series standards, a certain level of comprehensive quality management is determined. It ensures effective quality management and stipulates that all the necessary elements of the ISO 9000 series standards and the additional elements required for the company's specialization must be introduced into the company's work practices, thereby providing quality assurance to the customer. ISO 9000 standards and the concept of implementing SMT do not limit the type of activity of companies, whether large or small.

The universality of the series of ISO standards is that they do not set absolute dimensional criteria for each type of product. This would not be possible, because quality is the ability of products and services to satisfy human needs, and human needs are inexhaustible and changing. The series of ISO 9000 standards only defines the methodology of the quality system, and the system, in turn, ensures the high quality of the products produced by the company, in other words, high satisfaction of consumer demand [5].

The implementation of a process approach is of great importance in increasing the company's competitiveness. The essence of this approach is that any activity is a process, and this process, through the use of various resources and management effects, transforms input flows into output flows.

The main goal of a process approach to business organization and management is to get rid of the fragmentation, inefficiency and internal conflicts that are characteristic of many interdependent companies. Shifting the focus from function to process integrates all actions (operations) performed by a company to satisfy a specific consumer or market segment.



Conditional characters:

- ▶ A value-adding activity
- ▶ Information flow

Figure 1. Quality management based on a process approach system model [3]

Continuous improvement should remain the main goal of the company. In the current environment, without doing this, it is impossible to get to the leading positions in business. If the activity is constantly improved, not only the competitive position is maintained, but also the opportunity to gradually reduce the losses and, accordingly, to increase the income begins to appear.

A mutually beneficial relationship between suppliers will help expand the capabilities of both organizations. This requires selecting key suppliers, establishing clear and transparent communications, sharing information in advance, collaborating to clearly understand consumer needs, creating joint projects, and improving products and processes.

One of the many reasons for SMT's ISO 9000 certification was and remains "customer demand". This factor largely applies to the industrial market ("business-to-business"), as the ISO 9001 certificate allows to reduce costs associated with the search for a supplier partner and subsequent establishment of a relationship with him.

The main aspect of ISO 9000 standards is that when SMT is introduced, the stability and reliability of the company's business processes increases. As a result of complying with the requirements of ISO 9000 standards, companies can improve the interaction of their departments due to the clear instructions of the leader, activities and the correct distribution of responsibilities. The process approach included in the new version of the standards allows for the wide application of various measures aimed at continuous improvement.

The quality management system establishes standard conditions not only for the production process, but also for suppliers. A product that meets the conditions of a certain standard can be produced only from raw materials and materials that meet the conditions of the relevant standard. Otherwise, the finished product will not meet the standard requirements.

The output parameter of each process is the input parameter for the next process. For this reason, the semi-finished products obtained by each process must comply with the standard requirements.

Machines and tools used in each process have certain technical capabilities. Therefore, when organizing the production of quality products that can meet the requirements of foreign markets, it is necessary to justify the type of machines and tools used in the processes, their technical capabilities, of course, researched.

When we organize production, it is one of the important tasks to determine the number of machines for the processes of picking, tying, threading, sorting and measuring. If the number of machines is specified in small quantities, the weaving enterprise may lack semi-finished products, in which case the looms will be idle, or, on the contrary, if the number of machines is specified in large quantities, then part of the machines will remain idle. This leads to non-delivery of products in the specified terms in accordance with the assortment specified in the sales contracts.

The production capacity of the weaving workshop should be taken into account when determining the number of machines for the processes of picking, carding, threading, sorting and measuring. The number of machines according to processes can be determined by the following formula:

$$M = B / (T \cdot H \cdot ИУК)$$

Here:

M – the number of machines by processes;

B – 1 the amount of semi-finished products produced per hour;

T – 1 hour;

H – machine performance;

$ИУК$ – coefficient of working equipment.

When determining the number of machines, it is necessary to take into account the amount of waste for each semi-finished product entering the preparation process.

Table 1. On processes in textile enterprises semi-finished product output [3]

Procedures	In-process waste, %	Output of semi-finished products
Select	0,009	$100 - 0,009 = 99,991$
To make	0,333	$99,991 - 0,333 = 99,658$
Threading and connecting	0,039	$99,658 - 0,039 = 99,619$
Weaving	0,031	$99,619 - 0,031 = 99,588$

We calculate the obligation (need) for one hour:

$$1) \text{ Select} = \frac{G_{\text{ТАН}} \cdot M_{\text{ЯМ}}}{100} = \frac{165,5 \cdot 99,991}{100} = 165,4 \text{ кг/hour}$$

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$$2) \text{ To make} = \frac{G_{\text{тан}} \cdot M_{\text{ям}}}{100} = \frac{165,4 \cdot 99,658}{100} = 164,8 \text{ кг/hour}$$

$$3) \text{ Threading and connecting} = \frac{G_{\text{ок}} \cdot M_{\text{ям}}}{100} = \frac{164,8 \cdot 99,619}{100} = 164,1 \text{ кг/hour}$$

$$164,1 \text{ кг/hour} = 24,6 \text{ кг/coat} + 139,5 \text{ кг/hour}$$

We calculate the productivity of machine tools:

1) Edging:

$$A_x = \frac{60 \cdot V \cdot n_{\text{ип}} \cdot T_{\text{ип}}}{10^6} \cdot \Phi \text{БК} = \frac{60 \cdot 70 \cdot 898 \cdot 29 \cdot 0,5}{1000000} = 464,9 \text{ кг/hour}$$

2) Threading:

$$A_x = 65 \div 90 \text{ кг/coat (70 кг/hour)}$$

3) Threading:

$$A_x = \frac{60 \cdot V \cdot G_{TF}}{n_{\text{ип}}} \cdot \Phi \text{БК} = \frac{60 \cdot 400 \cdot 420,2 \cdot 0,6}{4491} = 1347 \text{ кг/hour}$$

4) Sort:

$$A_x = 60 \cdot V \cdot \Phi \text{БК} = 60 \cdot 50 \cdot 0,9 = 2700 \text{ м/hour}$$

5) Measure:

$$A_x = 60 \cdot V \cdot \Phi \text{БК} = 60 \cdot 40 \cdot 0,8 = 1440 \text{ м/hour}$$

Table 2. Hourly commitment calculation for preparation processes [3]

T/p	Indicators	Select	To make	Threading	Threading	Sorting	Measuring
1.	Hourly demand for semi-finished products	165,4	164,8	24,6	139,5	1168	1168
2.	Productivity of machine tools	546,87	464,9	70	1347	2700	1440
3.	Number of working machines	0,31	0,35	0,35	0,10	0,43	0,81
4.	IUK	0,97	0,93	-	0,945	0,955	0,97
5.	The number of looms	0,32	0,38	0,35	0,11	0,45	0,83
6.	The number of machines received	1	1	1	1	1	1

Therefore, when organizing the production of exportable textile products that meet the requirements of foreign markets, it is necessary to introduce a quality management system based on international standards.

Conclusions and suggestions.

- when organizing production, it is necessary to be based on process management, to ensure the coherence of processes, their continuity, and to ensure the quality of each business process;
- at the same time, first of all, it is necessary to pay special attention to the design and construction of the product, having studied the trend and the demand for textile products in the world markets;
- in order to increase the export potential of enterprises, it is necessary to increase the quality of products, to ensure that each product meets the requirements of world standards;
- it is necessary to activate the work of marketing departments, make extensive use of Internet opportunities to study the demands and needs of markets in foreign countries, increase the participation of enterprises in international textile exhibitions and cover the results on network sites and newspapers and magazines;
- the network is mainly developed extensively, currently more than 7,500 enterprises are operating in the republic, but the established production facilities are not fully operational (60-70% on average), although the level of utilization should not be less than 90-97% when the facilities are fully operational;
- it would be appropriate to use intensive development factors in enterprises so that the network operates effectively and trades stably in foreign and domestic markets.

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