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Article

Directions for Increasing The Competitiveness of Construction Enterprises

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Abstract: The purpose of this research is to investigate how the construction enterprises in Uzbekistan can increase their competitiveness in the environment of fast changing markets and increasing pressure for innovation. While earlier works emphasize technology development as a competitive strategy, an integrated framework for measuring competitiveness in construction is still absent—resulting in a major knowledge gap. The study applied comparative analysis, factor evaluation, and economic-statistical methods to specify the most important determinants of competitiveness such as innovative capacity, financial soundness, production efficiency, and managerial organization. The result is that enterprises with high investment activity, new technology, management system elements (ISO 9001 and ISO 50001) perform better, as shown in the case study of "Uzkhurilishmateriallari" JSC. As a result, revenues and production efficiency are up, but with declining dividend income and obsolete fixed assets, forcing more efforts in corporate governance and technological renewal. One such variable, which combines management, production, financial, innovative, labor and marketing resources into a single measure of the effectiveness of an enterprise activity, is an integral competitiveness coefficient offered in this study. These findings hold practical significance for policymakers and industry leaders looking for ways to improve sustainable competitiveness and enable long-term development of construction firms in Uzbekistan.

Keywords: construction, housing, reconstruction, investment, profit, conservation, machinery, building materials, construction and assembly works.

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1. Introduction

Integration of the economy of the world countries and in the conditions of digitization, the importance of increasing competitiveness at the enterprise level is increasing. One of the main problems facing modern construction enterprises is to achieve competitiveness that ensures their optimal development and operation in a constantly changing external environment. Increasing the competitiveness of construction enterprises allows these enterprises to improve not only technologies, but also methods of organizing the construction process in order to gain additional competitive advantage and occupy leading positions in the market. "The share of the construction industry in the global GDP averaged 14 percent, and during the pandemic in 2020, the decline of the construction market was observed and "McKinsey & CompanyConstruction and building technology: Poised for a breakthrough?" report notes that in 2002-2018, the industry showed low performance despite its size. In particular, global spending on residential and commercial real estate construction in the period 2021–2025 is approximately 17 trillion. it is expected

to increase to dollars" [1]. This shows that the importance of increasing the competitiveness of construction enterprises in the conditions of the innovative economy is increasing [2].

Many mines in the state balance sheet of the Republic of Uzbekistan, including 215 mines for the production of bricks and agloporite, 37 mines for the production of cement, 30 mines for high-quality stones, 5 mines for feldspar- raw materials and wollastonite, for glass raw materials - 7 mines, for burnt lime - 24 mines, for natural wall stones - 3 mines, for sand and gravel mixture - 91 mines, for raw materials for the preparation of sewage pipes - 3 mines, construction works and It has 28 mines of sand needed for silicate products, 15 mines of kermasite raw materials, 19 mines of plasters, and reserves of mineral resources of hakozao.

PF-158 dated September 11, 2023 of the President of the Republic of Uzbekistan "On the Uzbekistan-2030" strategy", PF-60 dated January 28, 2022 "For 2022-2026 "On the development strategy of the new Uzbekistan", No. PF-6119 of November 27, 2020 "On the strategy of modernization, rapid and innovative development of the construction network of the Republic of Uzbekistan for 2021-2025 on approval", dated September 21, 2018 No. PF-5544 "On approval of the innovative development strategy of the Republic of Uzbekistan in 2019-2021", dated May 23, 2019 PQ- No. 4335 "On additional measures for the rapid development of the construction materials industry", No. PQ-3698 of May 7, 2018 "Additional measures on the improvement of mechanisms for introducing innovations to economic sectors and sectors [3]. This dissertation research serves to a certain extent in the fulfillment of the tasks specified in the decisions of "On Measures" and other regulatory legal documents related to this field.

Analysis of literature on the topic

The development and development aspects of ensuring the competitiveness of construction products on the basis of innovative activities, the problems of the evaluation and management mechanisms of innovative activities in construction industry enterprises have been researched in the works of many economists and political scientists, but the analysis of scientific and economic literature and journals studied on the basis of research shows that there are scientific-methodical developments indicating that the competitiveness of construction products based on innovative measures in construction industry enterprises has not been fully explored. This is because there is no comprehensive (complex) approach to ensuring the competitiveness of construction products based on innovative activities in construction industry enterprises, and the opinions of the authors who conducted the research are very close to each other and offer their own evaluation methods and methods based on their ideas [4].

There are many ideas on how to determine the competitiveness of products through innovative activities. Some of them: American professor F. Kotler explains innovation as an idea, product or technology that is aimed at mass production and released to the market, accepted by the consumer as a completely new or partially unique product [5].
B.Twis considers innovative activities as a process with economic content of inventions and new ideas [6].

In the literature published under the editorship of IS Stepanova, it is said that "about two-thirds of the accumulation fund is implemented in the construction network, more than 10% of the gross social product of the country is created" [7]. The results of the research revealed that the value of transportation costs is 20-25 percent of construction costs alone. This, in turn, makes it more appropriate to use econometric models on the issue of transport in the analysis of construction sectors. 80 percent of construction materials industry products, about half of wood materials, more than 20 percent of metal rent, more than 10 percent of machinery industry products are used in construction [8]. This means that the activity of the network is of great importance in ensuring the employment of the population. Therefore, conducting a more in-depth study on the basis of structural changes in the development of construction industries and the use of investments in it is an urgent issue of the present day, gaining not only scientific, but also practical importance [9].

2. Materials and Methods

The results of the scientific research of national and foreign scientists, who were engaged in the analysis of the problems of increasing investment processes in the development of the construction industry, served as the theoretical and methodological basis of this study. In the preparation of the article, abstract and analytical observation, comparative and factor analysis, indicative, selective observation, comparison, economic-statistical and other methods were used.

3. Results

Today, the construction industry is one of the largest industries in the country, and at the same time, it accounts for about 9% of the gross domestic product of Uzbekistan. As a result of large-scale economic reforms in the country, the scope of construction enterprises is also increasing. In this regard, increasing the competitiveness of construction enterprises is becoming an urgent problem today, because the competitive environment, like all sectors of the economy, ensures the development of the construction industry [10]. It is for this reason that enterprises with low competitiveness, which do not meet market requirements, stop their activities, and at the same time, competitive enterprises and organizations continue to operate and develop. Thus, as a result of the development of competitive relations, the competitiveness of enterprises and organizations increases. Competitive relations are the basis of development not only in construction, but also in all enterprises and organizations.

Determining the competitiveness of construction enterprises also requires taking into account the specific characteristics of the manufactured products. Construction products are distinguished by their long service life. This is largely due to the healthy competition of construction enterprises, which serves as a driving force for the development of the economy of construction enterprises and the economy of the whole country. Competition is the main means of saving resources, because it encourages the efficient use of resources. It improves the quality of construction products and, as a result, the standard of living of the population.

In our opinion, the competitiveness of the construction enterprise–these are the characteristics that determine the conditions for the successful operation of the construction company in the construction market, reducing costs and improving the quality of built housing [11].

In our opinion, the competitiveness of a construction enterprise is formed on the basis of the following characteristics of construction products:

1. realization of products of construction enterprises in an environment of active competition is highly dependent on their consumption characteristics, as well as on the investment activity of business entities and the solvency of the population;
2. the ability to become a "delayed" consumer product due to the ability of the consumer to be satisfied with the product (service) available to him;
3. focusing on long-term use, which increases the consumer's interest in maintaining the existing one (repair, modernization, reconstruction) rather than buying a new product;
4. the dependence of the activities of construction enterprises on the socio-economic development of the region;
5. the special importance of the time factor due to the significant length of the production and commercial cycle;
6. the important role of design solutions that reduce the risk of obsolescence of construction products (services);
7. in the conditions of the need for competitiveness of production, an excessive number of requirements for the innovation of construction products (services);
8. the need to involve a large number of participants (developers, investors,

contractors, subcontractors, designers, regulatory bodies) in the creation of each product unit, which creates additional sources of risk in the process of establishing business relations with enterprises;

9. due to the high price of the final product of the construction industry, the scale of consumers is low.

Taking into account the specific characteristics of construction enterprises, a number of factors of competitiveness of construction enterprises can be distinguished.

1. Long-term demand dynamics [12]. Long-term demand means the period of time during which the internal resources of production of the construction enterprise can be replaced, such as capital, labor, technology, etc.
2. Scientific and technical innovations. In the last decade, various scientific and technical innovations related to the emergence of new construction materials, technologies, various high-performance equipment have appeared in the construction industry.
3. Advertising innovations. From time to time, companies, using new methods, offer their products to the market, trying to increase consumer enthusiasm and minimize unit costs [13]. This means that they promote new opportunities that change the conditions of competition and the position of competitors' enterprises.
4. Leadership dynamics describe the entry and exit of large enterprises from the competitive struggle.
5. Diffusion of achievements. If the innovative development is known to competitors, suppliers, buyers, then the barriers to entry into production will be reduced.
6. Efficiency dynamics. In the real sector of the economy, with the emergence of various new products or technologies, there are opportunities to increase the scale of production, thereby reducing the costs of the producer's product unit.
7. Regulation of the market by the state. The influence of the state through its institutions, including the regulation of financial relations and changes in public policy, allows to influence market relations and the state of competition in various sectors of the economy [14]. The state government creates software products, the purpose of which is to solve the problem of moving citizens from outdated housing, allocating apartments to military personnel, young families, etc.
8. Increased determination. This in turn means reducing uncertainty and risk.

In the market economy, there are a number of methods that help to increase the competitiveness of construction enterprises:

1. *Continuous use of innovations.*This method aims to ensure that the products offered by the enterprise meet not only the current needs of consumers, but also their future needs. For example, using new environmentally friendly building materials and building smart houses using energy-saving technologies.
2. *Expansion of new types of manufactured products*. Modern consumers are willing to pay for houses built using the latest architectural solutions, rather than concrete houses that are mentally and physically outdated.
3. *Relocation of construction companies from old housing*, production of products with characteristics that meet state standards in terms of quality and price, which allows participation in the implementation of state programs for the construction of military facilities and others.
4. *Construction companies find their customers*should pay more attention to studying the market demand of consumers.
5. *Use of high quality raw materials and materials.*In order to increase the competitiveness of the enterprise, it is necessary to pay more attention to the quality of the work performed, which, among other things, depends on the materials, products and constructions used in the construction of construction products.
6. *Active personnel policy*, training and retraining of personnel. Any company should approach the issue of recruitment carefully. In fact, it is necessary to have highly qualified specialists to use new construction techniques and innovative technologies.

7. *To increase material interests of employees and improve working conditions.*Currently, a very simple wage system is used in construction, however, new approaches should be developed to increase the motivation of workers.
8. *Organization of continuous monitoring of consumers of construction complex products in order to determine the needs of consumers.*
9. *Constantly analyze the activities of competitors in order to determine the strengths and weaknesses of both competing enterprises and your own enterprise.*
10. *Register your trademark, use branded products and maintain the business position of the construction company.*A trademark has a great impact on potential customers, and an impeccable business image of a construction company increases customer confidence in the products offered by the company.

Thus, it is necessary to determine the competitiveness of the construction enterprise for a long time, not only for efficient operation, but also for its further development, using a number of methods [15]. In our opinion, there are main and additional factors that directly or indirectly affect the competitiveness of a construction company. The main factors can be grouped into four groups, additional factors include indicators that are reflected in other aspects of the construction enterprise (Figure 1).

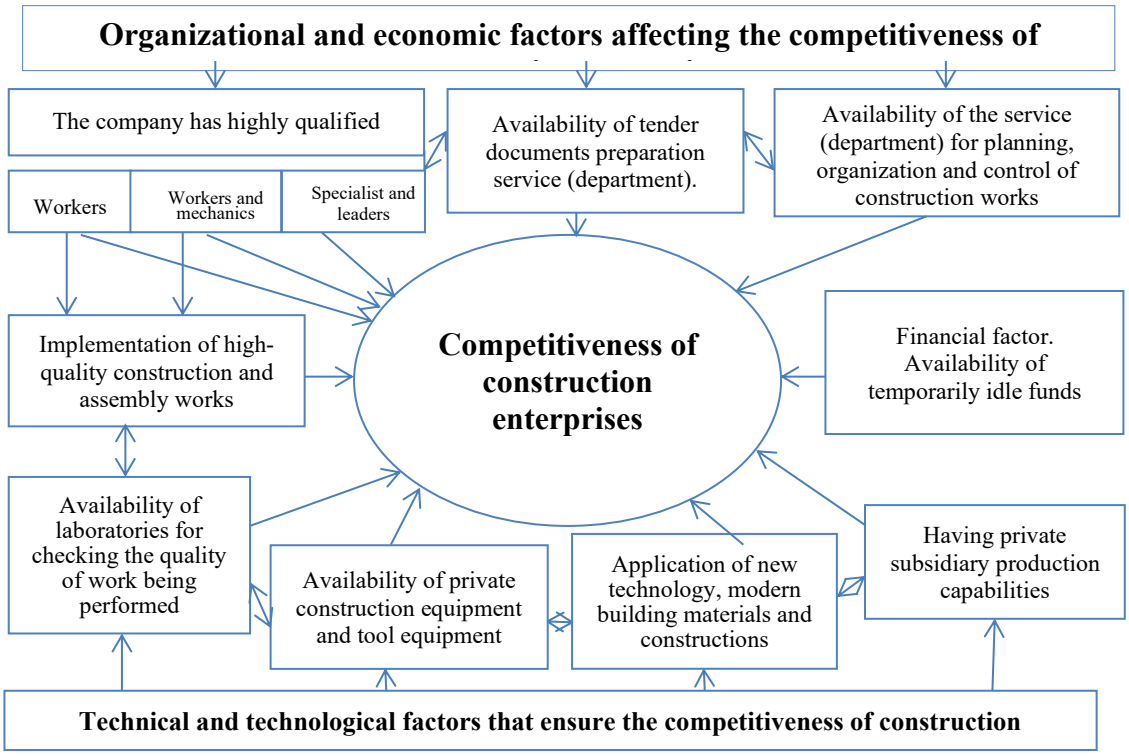

Figure 1. Factors affecting the competitiveness of construction enterprises.

At present, there is no general evaluation methodology of the level of organization and development of production in the enterprise, which makes it possible to determine its competitiveness in terms of organizational and technological indicators. This approach is important in today's market conditions, and it should be noted that the development of a methodology for determining the competitiveness of construction enterprises is equally necessary for both the ordering organization and the contracting organization.

A significant problem in determining competitiveness is that it is usually measured by comparison with a real competitor. Competitive assessment–it is a process of comparison with the competitor on a number of summary indicators of the enterprise's activity. The complexity of this process is related not only to the costs of collecting and preparing data, attracting analysts, but also to the insufficient development of methods and methodologies for such an assessment. Based on this, solving the following problems is defined as the goal:

The object of analysis and the approach to it have not been formed. Comparison of enterprises with different scale of production, assortment of performed works, different types of customers leads to wrong conclusions.

The composition, content and methods of determining the main evaluation indicators are not defined. Indicators that quantify the goals of assessment sometimes conflict with each other. An arbitrary set of indicators makes the evaluation sufficiently objective and complex, which makes it difficult to draw a possible final conclusion based on a summary indicator or priority.

The methodology for determining the competitiveness of a construction enterprise is reflected in the tables below, in which it is recommended to use standard values of enterprise competitiveness indicators. In order to assess the level of competitiveness of the enterprise, it is necessary to create a comparative table describing the level of the values of the coefficients obtained in the calculations using the data of this table.

When determining the indicators of the enterprise's management resources, it is appropriate to use methods of determination such as the coefficient of usefulness, labor productivity, the coefficient of real income of workers and employees, the coefficient of dismissal of workers and employees (Table 1).

Table 1. Indicators of management resources of the construction enterprise.

	No	Indicator name	Calculation method	The content of conditional characters
Calculation methods	1	Efficiency coefficient	Fk=Fj/Fo	Fj-net profit received in the current period; Fo-net profit received in the previous period.
	2	Coefficient of usefulness of the activity	Mm.k= (Dya.j/Xj.j)/ (Dya.o/Xj.o)	Dya.j-gross income of the enterprise in the current period; Xj.j-total expenses of the enterprise in the current period; Dya.o- the gross income of the enterprise in the previous period; Xj.o - total expenses of the enterprise in the current period.
	3	Coefficient of real income of workers and employees	RDk=RDj/R Do	RDj- value of real income of workers and employees in the current period; RDo- value of real income of workers and employees in the previous period.
	4	Unemployment rate of workers and employees	IXb.k= IXj/ IXo	IXj - the number of workers and employees in the current period; Rs is the number of workers and employees in the previous period.

When determining the indicators of production resources, which are the components of the competitiveness of construction enterprises, it is proposed to determine them through the coefficient of return of funds, the coefficient of availability of fixed assets, the coefficient of fund capacity (Table 2).

Table 2. Indicators of production resources of the construction enterprise.

	No	**Indicator name**	**Calculation method**	**The content of conditional characters**
Calculation methods	1	Fund return ratio	Fk=Mih/No	Mih - volume of product production; Voq is the average annual cost of fixed assets
	2	Availability ratio of fixed assets	Yak=Qq/Bq	Qq-residual value of fixed assets; Bq- initial value of fixed assets.
	3	Stock capacity ratio	Fs=1/Fq= Voq/Mih	Mih - volume of product production; Voq is the average annual cost of fixed

assets

Indicators of financial resources, which are a component of the competitiveness of construction enterprises, include the solvency ratio, financial stability ratio, current liquidity ratio, return on equity capital, return on debt, return on sales, economic return, capital turnover ratio, and payables turnover. The method of determination through indicators such as the coefficient was proposed by economists (Table 2).

In addition to these indicators, it is desirable to determine the indicators of the financial independence coefficient, the asset profitability coefficient, the financial autonomy coefficient, the active working capital ratio, the receivables turnover ratio and the coefficients of possible financial resources.

In accordance with paragraph 8 of the statement No. 97a of the meeting of the Cabinet of Ministers of the Republic of Uzbekistan dated December 5, 2021, it is planned to introduce ISO 9001 quality management systems in 7 enterprises of the company, and ISO 50001 energy management systems in 2 enterprises in 2018-2023 (Table 3).

Table 3. Analysis of the main financial and economic indicators of "Uzkhurilishmateriallari" JSC for 2018-2023, billion soums

Indicator name	Years						Growth from 2023 to 2018, m.
	2018	2019	2020	2021	2022	2023	
Revenue from product sales	1295.3	1539.9	1928	2103	1935	2451	1.89
Product production cost	628.1	762.4	776	922	1126	1217	1.94
Period costs	300.8	214.9	263	332	386	423	1.41
Selling expenses	40.4	39.6	50	55	62	71	1.76
Other operating expenses	232.4	142.6	174	226	267	291	1.25
Other income from the main activity	17.8	15.3	47	35	64	44	2.47
Gross profit from the sale of products	667.2	777.5	1152	1181	809	1234	1.85
Income in the form of dividends	9.7	0	0.02	0.01	0.2	0.016	0.0016
Income in the form of interest	30.1	36.8	50.1	53.9	46.6	50.7	1.68
Expenses in the form of interest	0.4	1.2	2	3.5	8	13	32.5
Income from exchange rate differences	7.4	9	7.6	14	10	11	1.48
Profit before income tax	425.2	613.5	948	928	529	891	2.09
Income tax	11.5	9.3	9.6	2.7	5	5	0.43

Net profit	192.8	327.2	510.7	410.4	210.9	350.7	1.82

Source: author's calculations based on the information of AK "Ozkhurilishmaterialari".

Network schedules for the introduction of ISO 9001 and ISO 50001 in 2022-2023 were agreed and approved with the "Uzstandart" agency. In this paragraph of our research work, the analysis of the financial and economic indicators of the management and economic activities of the joint-stock company "Ozkhurilishmateriallari" selected as a research object in 2021-2022 is carried out.

According to the analysis, by the end of 2023, the amount of income from the sale of products in the society has increased by 1.89 times compared to 2018, and the net profit in 2018 is 192.8 billion. soums, 350.7 billion in 2022. soum or 1.82 times compared to 2018. The cost of product production in 2017 was 628.1 billion. amounted to 1217 billion soums in 2023. soums, that is, it shows that it has increased by 1.94 times. Income in the form of dividends in 2018 amounted to 9.7 billion. is equal to 0.016 billion soums in 2022. soums, that is, in 2023 it decreased by 606.2 times compared to 2018.

The ratio of net profit to the cost of production, and especially the volume of income in the form of dividends, has decreased dramatically over the past period. Also, if the company's share capital in 2055 is 2534 billion. is equal to 1277.8 billion soums in 2017. increased by 1.98 times compared to the soum, private capital increased by 2.23 times, operating profit by 1.73 times, and the amount of interest payments by 7.59 times, respectively. Despite the fact that the number of ordinary shares of the company in circulation increased by 70.3 times during this period, the amount of profit tax decreased by 2.4 times compared to the previous period (Table 4). These indicators indicate the need to increase the efficiency of corporate management in the joint-stock company "Ozkhurilishmaterialari".

Table 4. Some financial indicators of "Uzkhurilishmateriallari" JSC for 2017-2022,billion soums

Indicator name	**Years**						**Growth of 2022 compared to 2017, m**
	2017	**2018**	**2019**	**2020**	**2021**	**2022**	
Share capital	1277.8	1 493.6	1 923.2	2177.0	2248.4	2 534.0	1.98
Private equity	335.8	386.5	487.9	478.6	749.9	749.9	2.23
Number of common shares outstanding	6 882	7 497	15 178	460 439	739 342	483 764	70.3
Operating profit	494.1	577.9	935.5	883.5	486.1	854.8	1.73
Amount of interest paid	1.76	1.16	2, 99	3.51	8.57	13.36	7.59
Profit tax	12,20	9.31	10.71	26.96	5.09	5.09	0.42
Net assets, per year	1 250.8	1 314.6	1 496.9	1 906.7	2 206.5	2 248.4	1.79
Net assets, year-end	1 277.86	1 493.63	1 923.23	2 177.00	2 248.39	2,534.03	1.98

Source: author's calculations based on the information of AK "Ozkhurilishmaterialari".

The results of the activity of each enterprise often depend on the availability of reserves

and resources to cover expenses. Three main indicators are defined to describe the sources of reserves and costs:

1. Availability of own and long-term debt sources of formation of reserves and expenses;
2. The total amount of the main sources of reserve and cost formation.

In 2018, the total resources related to the provision and reimbursement of costs in the society amounted to 947.5 million soums, and in 2023 it reached 2501 million soums, which is a positive change compared to 2018 and differs by 1553.5 million soums.

Therefore, in our opinion, it is necessary to have a single normative coefficient that determines the level of competitiveness of the construction enterprise. In our opinion, it is possible to determine this indicator, which means that it is expressed by a common integral coefficient of the indicators that make up all available resources.

$$Rqk = (Bsbk * Ichs * Ms * INsqk * Mehs * Mars)1/6$$

here,

Rqk–the integral coefficient of the level of competitiveness of the construction enterprise;

Bsbk–coefficient of management resources of the construction enterprise;

Drinks–coefficient of production resources of the construction enterprise;

Ms–coefficient of financial resources of the construction enterprise;

INscq–coefficient of innovative resources of the construction enterprise;

Mehs–coefficient of labor resources of the construction enterprise;

Mars–coefficient of marketing resources of the construction enterprise.

On the basis of this formula, the single value of the level of competitiveness of construction enterprises is created. In conclusion, it can be said that a single indicator should be used to express the level of competitiveness of the construction enterprise, and through this indicator it is necessary to have an idea of the overall economic development indicator of the enterprise.

4. Conclusion

Based on the conclusions developed during the research, the following scientific proposals and practical recommendations were made:

It is based on the expediency of considering the salaried production workers, who are part of the innovative potential of construction industry enterprises, as a socially needy population according to their level of education and giving them the status of self-employed persons. In the evaluation of the innovative potential of the construction industry enterprises, according to the integrated assessment of the potential of scientific research, technological and innovation effectiveness, and the influence of innovations on the standard of living, "absolutely high" (80-100), "normally high" (60-79), "stable" (30- 59), the assessment is based on the percentage limits of "moderate risk" (10-29) and "high risk" (0-9).

In order to increase the economic potential of JSC "Ozkhurilishmateriallari" it is necessary to increase the level of turnover and investment funds, for this it is necessary to develop measures to increase the efficiency of attracting investors, in particular, foreign investments to the society.

It is necessary to update the old and outdated fixed assets in the enterprises of "Uzkhurilishmateriallari" JSC and reconsider the percentage of amortization allocations.

It is necessary to take measures to increase the competitiveness of the products of JSC "Uzkurilishmateriallari" products (low quality, insufficient labor productivity, high fund capacity, technical backwardness).

It is necessary to consider and develop the market situation in order to satisfy the domestic market on the basis of the production of competitive high-quality products that replace imports at the enterprises of "Ozkhurilishmateriallari" JSC.

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