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= 6.630= 1.940=4.260

QR - Article

OR – Issue

= 1.500

SOI: <u>1.1/TAS</u> DOI: <u>10.15863/TAS</u> International Scientific Journal Theoretical & Applied Science

JIF

**p-ISSN:** 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2020 **Issue:** 07 Volume: 87

**Published:** 30.07.2020 http://T-Science.org





I.P. Najimov Karakalpak State University Assistant iskanderbek86@mail.ru

### DIRECTIONS OF EFFECTIVE DEVELOPMENT OF THE INDUSTRY OF CONSTRUCTION MATERIALS OF THE REPUBLIC OF KARAKALPAKSTAN

Abstract: The building materials industry occupies a key position in the investment and construction process of the Republic of Karakalpakstan. Currently, one of the main directions of the effective development of this industry is to ensure the sustainable development of the industry, which will increase the competitiveness of building materials enterprises and activate the investment process. The article proposes the creation of an industry cluster to ensure the sustainable development of enterprises in the building materials industry.

**Key words**: production of building materials, investment and construction activities, sustainable development, enterprises of the building materials industry, production cluster.

Language: English

Citation: Najimov, I. P. (2020). Directions of effective development of the industry of construction materials of the republic of Karakalpakstan. ISJ Theoretical & Applied Science, 07 (87), 301-307.

Doi: crossef https://dx.doi.org/10.15863/TAS.2020.07.87.59 **Soi**: http://s-o-i.org/1.1/TAS-07-87-59

Scopus ASCC: 2215.

#### Introduction

UDC: 691

The building materials industry, being an integral part of the material and technical base of capital construction, has achieved significant successes over the years of independence, which have become the basis for the effective implementation of investment and construction programs, which made it possible to solve pressing socio-economic problems.

In the "Strategy of Action on the Five Priority Directions of the Development of the Republic of Uzbekistan in 2017 - 2021", one of the priority directions is "development and liberalization of the further economy aimed at strengthening macroeconomic stability." and here the issue under consideration is in line with these priorities.

It should be noted that in the microeconomic context, the sustainable development of enterprises and organizations is expressed in the desire to limit the likelihood of their bankruptcy by improving the internal environment and anticipating and / or adapting to changes in external and internal environmental factors.

The Republic of Karakalpakistan has significant differences and it is distinguished not only by geographic and climatic conditions, but also by development prospects, the current level of social and economic development, and other factors. In this region, ensuring the effectiveness of investment and construction activities, increasing investment attractiveness, ensuring construction with effective building materials is relevant like in no other region of Uzbekistan. In the context of modernization and innovative development of the regional economy, the role of the industry in question from the standpoint of influence on the acceleration of innovative processes in the region is growing. In modern conditions, it should not only be ahead of the dynamics of the development of construction volumes, but also in many respects should be a "locomotive of innovative activity" for capital construction [4]

LITERATURE ANALYSIS: The theoretical foundations, economic essence and scientific aspects of the economic potential of industrial enterprises have been studied by such foreign scientists and economists as Ansoff I., Drucker P.F., Kaplan R.,



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Copeland T., Koller T., Murrin J., Norton D., Sun Tzu and others

The problem of increasing economic sustainability and the growth potential of industrial enterprises in the Commonwealth of Independent States was studied by such scientists as Arkhipov V.M., Zhoglina E.V., Kleiner GB, Kovalev VV, Marushkov RV, Raizberg B.A., Sosnenko L.S., Bryantseva I.V., Prykin B.V., Biryukov G.Kh., Damaev D.V., Kolosova T.V. et al.

Problems of increasing the economic efficiency of the investment and construction complex of Uzbekistan and its material and technical base are reflected in the works of such scientists of the republic as Khikmatov A.M., Zainutdinov Sh. N., Nurimbetov R.I., Ziyaev MK, Davletov I .Kh., Kalmetov B.D., Kazimov V.A., Niyazov S.M., Suyunov A., Makhmudov E.Kh.,, Kurbaniyazov Sh.K. and many others.

Nevertheless, in modern conditions, new approaches are needed to intensify investment and construction activities of industries and industries that are part of the construction industry, which is due to the deepening of market relations, acceleration of innovation processes, strengthening of the competitive environment and the need for resource

and energy conservation, ensuring the preservation of the environment [5,6,8]

**RESEARCH METHODS.:** The methods used are logical and modeling, statistical and comparative analysis, a systematic approach.

ANALYSIS AND RESEARCH RESULTS: The balanced and effective socio-economic development of Karakalpakstan requires, in modern conditions, the building materials industry to maximize the use of all types of resources and significantly increase production efficiency with a noticeable improvement in product quality. Ensuring these requirements need for determines the a comprehensive consideration of factors affecting the development efficiency of the industry. In the socio-economic development of the region, regional features play a priority role, which clearly distinguish the Republic of Karakalpakstan from other regions of Uzbekistan.

Analyzing the dynamics of construction volumes in the studied region, one can note the presence of a steady growth trend in the volume of construction work (Table 1), when the average annual increase in the volume of work amounted to more than 27% from 2014 to 2018 and there is a fairly wide amplitude of fluctuation.

Table 1. The dynamics of the main investment indicators and construction activities of the Republic of Karakalpakstan for 2014-2018 (actual prices, billion soums)

Indicators	2014y.	2015 y.	2016 y.	2017 y.	2018 y.	Grow-th for 2014-2018
1. The introduction of fixed assets	3 990,6	6 021,2	3 778,3	2 822,0	6 757,8	1,69
including production purpose	2 789,8	4 730,4	2 389,8	1 098,3	6 445,8	2,30
2. Construction work	1 053,5	1 219,3	1 171,8	1 398,8	2 193,0	2,08

Note that the studied region in 2018, along with the Navoi and Namangan regions, became one of the "leaders" in the growth of investment in fixed assets in the country: the growth rate of this indicator in Karakalpakstan was 3.38 times higher than the national average (tab. . 2).



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Table 2. The growth rate of investment in fixed assets in Uzbekistan and a number of regions in 2018

Regions	% Growth over the previous year
Uzbekistan as a whole	118,4
Republic of Karakalpakstan	162,2
Navoi region	184,6
Namangan region	171,2

Of course, a positive fact is that the region has a large share of investments allocated for reconstruction and technical re-equipment (Fig. 1). This is an indirect

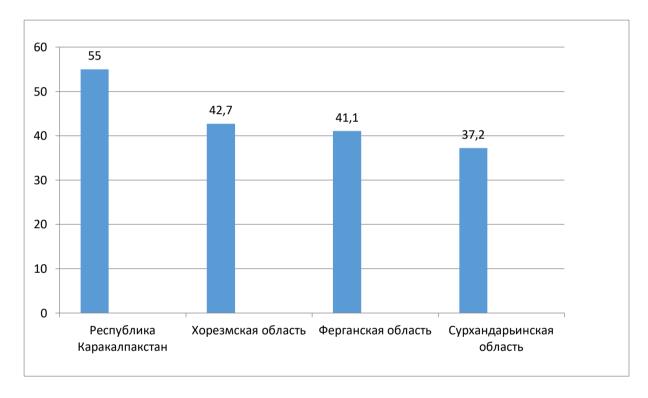
confirmation of the innovative development of the economy of the Republic of Karakalpakstan.

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1-Figure. The share of investments allocated for reconstruction and technical re-equipment in 2018 in a number of regions of Uzbekistan (in%)

Such rates of investment and construction activities require adequate development of the region's building materials industry. Analysis of the development of industrial and building materials industries of the Republic of Karakalpakstan for 2014-2018 (Table 3) shows that the industrial production growth rate is unstable, the share of industrial building

materials production has significant fluctuations. Over the period under review, the total number of industrial enterprises grew by 43%, and enterprises for the production of building materials at a faster pace and grew by 72.7%. It should be noted that if in 2014 the average number of employees in one enterprise was 16.6 people, then in 2018 it amounted to 14.4 people.



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Table 3. The dynamics of a number of key indicators of the industry and industrial industry of building materials of the Republic of Karakalpakstan

Indicators	2014 y.	2015 y.	2016 y.	2017 y.	2018 y.	Growth for the entire period
The growth rate of industrial production (in%)	101,2	103,4	89,7	88,6	142,8	-
The specific weight of PSM products in the total industry (%)	9,2	7,0	3,6	1,1	4,3	-
The number of enterprises in industry	1265	1409	1201	1445	1796	1,43
The number of enterprises in PSM	143	172	161	180	247	1,73
The volume of output of the building materials industry (billion soums)	157,4	130,8	103,4	196,1	421,7	2,67
Number of employees (people)	2379	2520	2383	2825	3551	1,49
Profit (billion soums)	18,7	20,5	26,2	-50,8	60,3	3,2

It should also be noted that, based on the growth of production volumes, industry productivity increased over the reporting period from 65.99 million soums to 118.8 million soums per employee per year.

Assessing the output of the main products by industry (Table 4), one can note the presence of a fairly steady increase in the production of wall

materials and soft roofing materials. An unconditional achievement for the industry is the start of production of a strategic material for construction - cement: for the first time in Karakalpakstan in 2017-2018 over 190 thousand tons were produced. This is an unconditional achievement.

Table 4. The dynamics of production of building materials industry of the Republic of Karakalpakstan

The name of indicators	2014 г.	2015 г.	2016 г.	2017 г.	2018 г.
Production of precast concrete products (cubic meters)	288 654,0	129 348,6	92 850,7	178 256,0	224 579,2
Wall materials (thousand pieces)	70 491,5	67 914,0	65 135,9	77 601,6	101 555,2
Soft roofing materials (thousand m2)	215,5	210,0	411,8	328,7	434,1
Cement, thousand tons	-	-	-	48,0	142,5

Data on the dynamics of the development of fixed assets and investments in the building materials industry (Table 5) show that the industry is given

serious attention, but nevertheless, according to experts, the industry in question is not distinguished by the use of high and modern technologies.



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Table 5. Dynamics of development of fixed assets and investments in the construction materials industry of the Republic of Kazakhstan (billion soums)

Indicators	2014 y.	2015 y.	2016 y.	2017 y.	2018 y.
Commissioning of new fixed assets	37,0	16,3	18,1	92,4	265,4
Investment in fixed assets PSM (total)	32,4	19,4	60,1	100,2	442,3

One of the features of this industry is that most of its enterprises are located mainly in the southern regions of the republic. This is especially pronounced in the production of reinforced concrete products.

Thus, the analysis shows that the industry is influenced by a number of objective and subjective factors, including:

- \* steady growth in capital construction;
- he presence of significant fluctuations in the annual volume of construction work;
- \* remoteness from industrial centers of the country;
- \* insufficiently complete range of types of local raw materials for the production of building materials;
- \* the availability of local raw materials for the production of building materials;
- \* insufficient use of industrial and agricultural waste for the production of building materials, which also affects the complication of the environmental situation

It should also be noted that the presence in Karakalpakstan of a steady growth in capital construction, which, due to the need to implement the State program to bring the level of urbanization in the country to 60 percent by 2030 [3], as well as with the continuation of development of deposits with a high probability, should save.

We emphasize that in modern conditions in the Republic of Karakalpakstan two challenges are influenced by construction and the industry under study:

-the need for construction in undeveloped territories in connection with the development of new

gas and other mineral deposits (a striking example is the Surgilsky gas chemical complex on the Ustyurt plateau). Currently, the share of these facilities in the state construction program reaches up to 24%.

-the need for accelerated urban construction, provided for by the State program on urbanization.

This is certainly reflected and will affect the activities of construction organizations and enterprises of the building materials industry.

It should be noted that under the conditions of Karakalpakstan, the possibility of maneuver during periods of relative decline in demand for both construction companies and enterprises producing construction materials is very difficult due to the remoteness of the region from other areas. In other regions of the country, for example, in areas located in the Ferghana Valley, there is a wide possibility of maneuver due to the proximity of areas, relatively short distances. Under these conditions, sharp changes in the volume of construction are not so negatively reflected in the activities of these enterprises, since it is possible to reduce power losses in adverse periods due to construction projects in the nearest areas.

The region under study has a number of other features that affect both the development of the economy and construction, as well as the building materials industry. It is known that this industry is a service industry in relation to construction and its main task is to provide construction objects with construction materials in sufficient volume and required quality.

Summarizing the analysis, we will conduct a SWOT analysis of the building materials industry of the Republic of Karakalpakstan (Table 6).

Table 6. SWOT analysis of the building materials industry of the Republic of Karakalpakstan from the standpoint of achieving sustainable development in a strategic plan

Strengths	Weaknesses
<ul> <li>low cost of labor;</li> <li>the presence of an educational base to strengthen human resources;</li> </ul>	<ul> <li>narrow production line (product range);</li> <li>significant annual fluctuations in capacity utilization</li> <li>lack of financial resources (working capital and basic for the implementation of strategic initiatives)</li> </ul>



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- a positive trend in the growth of construction volumes;
- the ubiquity of a number of types of local raw materials;
- state support in the intensification of production.
- low profitability of production activities due to poor organization of supply and maintenance of machines and mechanisms;
- *high production costs due to instability of orders;*
- low competitiveness of products;
- a high degree of depreciation of fixed assets;
- in general, a rather limited range of raw materials of the local raw material base;
- low innovation activity of enterprises

#### **Opportunities**

#### increase in volumes

- production and expansion of the product range;
- increasing the level of competitiveness of products, including by reducing production costs;
- strengthening the production and technical base of the enterprise and improving the technical equipment of production;
- improving the qualifications of employees

- reducing the investment attractiveness of the region and reducing orders for production;
- uneven distribution of industry enterprises;
- phasing out production;

**Threats** 

- *the emergence of new competitors;*
- decrease in the level of product quality;
- creating a negative social position

A SWOT analysis of the building materials industry in Karakalpakstan indicates that the current state of the organizational and economic potential of the building materials industry enterprises are: a narrow range and low quality of products, underutilization of production capacities, insufficiently high qualification of workers, insufficient use of the local mineral resource base, low innovative activity of enterprises.

All of the above affects the decline in the investment attractiveness of the region. Of course, in solving this problem, a large role belongs to the construction materials industry of the Republic of Karakalpakstan., Whose capabilities are currently quite limited and not fully implemented.

Thus, currently there is an urgent problem of effective provision of the region with building materials. In [10], considering the development paths of the construction industry of Uzbekistan, the need for innovative development of the industry is noted and, along with other activities, it is proposed to pay

attention to the enlargement of enterprises in the industry, and the application of a cluster approach.

The development of domestic scientists in the field of the use of local raw materials and production wastes for the production of building materials is noteworthy. For example, studies reflected in [6,7].

World practice shows that to ensure sustainable development in modern conditions, it is necessary to intensify innovation and the creation of industry or regional clusters [12] are effective ways to achieve high end results. Moreover, in innovative activities, we propose to apply progressive project management methods [11].

That is why one of the most important recommendations for ensuring the sustainable development of the industry is the creation of an innovative production multi-level cluster. the structure of the industry innovation cluster and the distribution of the main management functions of the industry cluster are presented in table. 7.

Table 7. The structure of the industry innovation cluster and the distribution of basic management functions

Level	The composition of formations (elements) and their most important functions,
highest	Ministry of Construction of the Republic of Karakalpakstan
category	1. Development of a strategy for innovative development of the industry
	2. Management of the implementation of the strategy for innovative development of the industry
second	Ministry of Construction of the Republic of Kazakhstan and educational institutions
category	1. Identification of areas of innovative development of the industry
	2. Improving human capital in the industry
third category	Higher education institutions and major design organizations



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	<ul> <li>1. Development of domestic innovations</li> <li>2. Assessment of the acceptability of foreign innovations to local conditions</li> <li>3. Formation and maintenance of an industry portfolio of innovations</li> <li>4. Development of recommendations for increasing the potential of enterprises and the industry</li> </ul>
	as a whole
Fourth level	<u>Industry enterprises</u>
	1. Ensuring an effective process of innovative development in the field

Unconditionally consolidated joint activity of all cluster members indicated in Table. 7, will ensure the desired synergistic effect and significantly increase

the investment attractiveness of such a promising region, which is the Republic of Karakalpakstan.

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