

# ECONOMETRIC ANALYSIS AND ASSESSMENT OF INVESTMENT USE EFFICIENCY OF BUSINESS SUBJECTS IN NAMANGAN REGION

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**Annotation:** In this article, the econometric analysis and evaluation of the effectiveness of the use of investments in small business entities of the Namangan region, as well as the ways and perspectives of improving investment in small business sectors are presented.

**Key words:** Small business, foreign investment, investment environment, investment activity, investment attractiveness, efficiency.

As noted in the State Strategy for the Development of Territories for the Period up to 2030, one of the strategic goals of the socio-economic development of regions is to increase the level of competitiveness of regions, which can be achieved through the effective use of their potential and competitive advantages of the economy and the creation of favorable conditions. In the context of transformational changes in the economy, the development of small business entities should be a priority task in the economic policy and regional development programs of the Republic of Uzbekistan, since the formation of an effective competitive environment and raising the living standards of the population depend on the dynamic and stable functioning of this sector.

This is evidenced by the existence of advantages of small business activities, the main of which are: the ability to implement the achievements of scientific and technological development, production flexibility, active cooperation with large and medium-sized businesses, prompt management decisions; it is possible to cite the experience and qualifications of employees. The conducted analyses show that the issue of qualified personnel in the region creates certain difficulties in organizing small business enterprises aimed at developing the activities of small business entities and increasing employee employment. Therefore, there was a need to conduct a SWOT analysis in order to further identify small business entities in the Namangan region (Table №1).

**1-table**

## SWOT analysis of small businesses in Namangan region

### STRENGTHS

1. Useful logistics opportunities.
2. Rapid changes in market demand.
3. A large share of small businesses.
4. The possibility of developing entrepreneurship among socially vulnerable segments of the population.

### WEAKNESSES

1. High tax rates and limited resources for small businesses.
2. Imperfect legal framework.
3. Low level of employee wages.
4. Low level of investment in small enterprises.
5. Low innovation activity in small enterprises.
6. Low purchasing power of consumers.

### OPPORTUNITIES

### THREATS

1. Use of natural, geographical, labor and production potential.
2. Use of ties with neighboring countries.
3. The presence of a large number of various gaps in the market.
4. Expanding forms of financial and credit assistance to small businesses.
1. Borders with neighboring countries.
2. High pressure on taxpayers.
3. Inflation risks.
4. Lack of financial and credit resources for small businesses.
5. Low level of cooperation between large enterprises

The most important task in Namangan region today is to identify promising types of activities for small business entities of the region, the necessary conditions for increasing their competitiveness. One of the important and priority types of economic activity of Namangan region is the transport complex, which ensures the needs of the national economy and population and is an important factor in realizing its important and beneficial geostrategic potential. Three national highways and international highway corridors pass through the region. It should be noted that the development of the region's transport network is of great importance in increasing its competitiveness and activating large-scale cooperation with other countries.

The agro-industrial complex occupies an important place in the structure of the regional economy of Namangan region, which includes the following areas, in particular, the provision of agricultural production facilities and various types of machinery, the production, storage and processing of agricultural products. The main component of the agro-industrial complex is the agricultural sector, which consists of the crop and livestock sectors. In recent years, the share of small enterprises in the total number of agricultural enterprises has remained stable. The number of employed and hired workers in the small business sector of the region in agriculture is constantly increasing, which serves to solve the issues of social development of the region.

To conduct an econometric analysis of the efficiency of investment use in small business entities of the Namangan region, first of all, the following indicators were selected as the outcome factor: the volume of production of small business entities - KBMH, the number of items in the industry - TBS, the volume of exports in the industry - TEH, and the cost of products (goods, works and services) sold in the industry - SMT, according to the data of the State Statistics Committee of the Republic of Uzbekistan for 2005-2021. To confirm the correct selection of these factors, their correlation coefficient is determined (Table 2).

2-Table

**Correlation coefficient of factors influencing changes in production volume of small business entities**

	<i>KBMH</i>	<i>AKO'I</i>	<i>TBS</i>	<i>TEH</i>	<i>SMT</i>
KBMH	1				
AKO'I	0,967149	1			
TBS	0,901626	0,811212	1		

TEH	0,943408	0,935908	0,888675	1	
SMT	0,99823	0,963735	0,885541	0,929516	1

If we pay attention to the values in the table, the investment in fixed capital - AKO'I (rKBMH,AKO'I=0.967149), the number of items in the industry - TBS (rKBMH,TBS=0.901626), the volume of exports in the industry - TEH (rKBMH,TEH=0.943408) and the cost of products (goods, works and services) sold in the industry - SMT (rKBMH,SMT=0.99823) are directly related to the resulting KBMH factor - a strong density. It should be noted that the regression equation between the observed relationship between the selected factors, which is observed due to the absence of multicollinearity under the condition  $rx_1, x_2 < 0.8$ , can be continued using the EViews program. Since the units of measurement of the selected factors are different, a regression equation is generated by taking the logarithms of the factor indicators and testing it based on qualitative criteria (Table №3).

### 3-Table

#### Multivariate regression equation of changes in the volume of goods and services created in small business and private entrepreneurship

Dependent Variable: LNKBMH

Method: Least Squares

Date: 10/31/22 Time: 11:28

Sample: 2005 2021

Included observations: 17

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNAKO'I	0.012558	0.196045	0.064055	0.0500
LNTBS	-2.612088	0.950565	-2.747931	0.0177
LNTHE	0.014391	0.249017	0.057793	0.0519
LNSMT	1.236100	0.296416	4.170155	0.0013
C	15,501525	5,007572	3,095617	0.0091

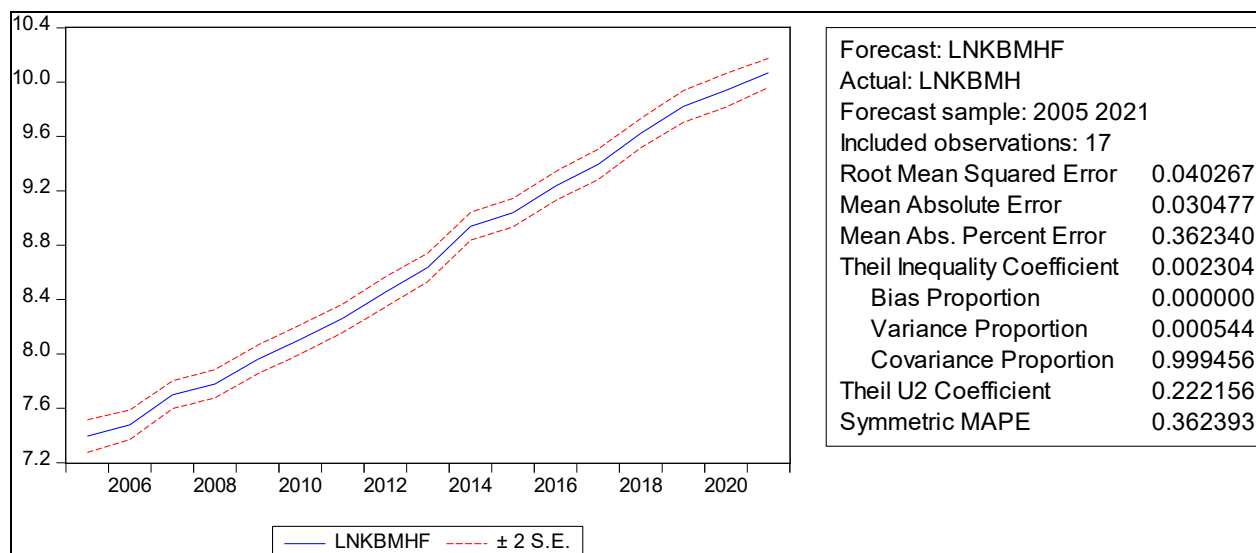
t-жанд=2,200985

R-squared	0.968467	Mean dependent var	8.754682
Adjusted R-squared	0.957956	S.D. dependent var	0.825457
S.E. of regression	0.169256	Akaike info criterion	-0.474875
Sum squared resid	0.343773	Schwarz criterion	-0.229812
Log likelihood	9.036438	Hannan-Quinn criter.	-0.450515
F-statistic	92.13892	Durbin-Watson stat	1.925177
Prob(F-statistic)	0.000000	F <sub>жад</sub> =0,2979125	

Based on the values of the coefficients given in the table, the following equation is created:

$$\text{LNKBMH} = 0,013 \text{ LNAKO'I} - 2,6 \text{ LNTBS} + 0,014 \text{ LNTHE} + 1,24 \text{ LNSMT} + 15,501525 \quad (1)$$

If we pay attention to the significance of the parameters of the identified regression equation 1 according to the t-Statistic criteria, with  $\alpha=0.05$  and  $df=11$ , the investment in fixed capital - AKO'I ( $t_{\text{AKO'I}}=0.064055 < t_{\text{Jad}}=2.200985$ ) and the export volume in the industry - TEH ( $t_{\text{TEH}}=0.057793 < t_{\text{Jad}}=2.200985$ ) are insignificant, and the significance of these parameters needs to be checked with the retrospective quality criteria MAPE (Mean Absolute Percentage Error) and TIC (Tayl inequality coefficient - an alternative measure of Tayl forecast accuracy). (1-picture).



**1-Picture. Results of retrospective quality criteria regression parameters**

Based on the data presented in Figure 2.2.1, it can be noted that  $\text{MAPE}=0.36$ , which in turn implies that all the parameters of regression equation 1 are significant, since the  $\text{MAPE}=0.36 < 10\%$

and the  $TIC=0.0023 < 1$  coefficient tend to zero. In order to comply with the rules of mathematics and to simplify the calculation process and achieve accuracy of the results, the regression equation 1 derived above is exponentiated and the following equation is derived:

$$KBMH = \frac{AKO \cdot I^{0,013} \cdot THE^{0,14} \cdot SMT^{1,24} \cdot e^{15.501525}}{TBS^{2,6}} \quad (1^*)$$

The Fisher exact value  $F_{his}=92.14$ , calculated taking into account the true significance of the derived 1\* regression equation, which is equal to  $F_{Jad}=0.2979125$  for  $\alpha=0.05$  and  $k_1=11$ ;  $k_2=4$ , indicates the significance of the 1\* regression equation under the condition  $F_{Jad} < F_{his}$  and the absence of autocorrelation, which implies the reliability and adequacy of the equation.

Now, if we give an economic explanation to the 1\*-regression equation determined on the basis of econometric analysis, based on the attraction of investments in small business sectors in Namangan region and its effective use, if the amount of investment in fixed capital and the cost of sold products (goods, works and services) is 1.0 billion. increase to 0.1 bln. soums and 1.5 bln. it was found that it allows to increase to soum.

The increase in the cost of production is mainly due to the lack of new energy-efficient technologies and electricity for the capital equipment currently used in enterprises, which should be taken into account when developing development programs at enterprises.

It was determined that if the number of employees in the network increases by one thousand, the volume of services produced and provided by small business entities will decrease by 66.3 billion soums. This, in turn, indicates that the existing small business entities in the Namangan region are currently saturated with labor, and it is necessary to organize new small business entities in the region.

Currently, the export potential of the Namangan region is satisfactory, and small business entities play an important role in this. In this sense, if the volume of product export in the network is 1 mln. If it is increased to US dollars, the volume of goods and services created in small business and private enterprise will be 1.4 billion. it was determined that it will increase to soum.

Taking the above into account, we consider it appropriate to consider the main advantages of integrating small businesses with large companies, including:

It should be noted that the process of forming and implementing directions for the development of small business entities should be aimed at increasing their competitiveness, while maintaining the competitiveness of small business is a complex and strategic task, which in turn requires the development of business entities. When forming the concept of supporting the competitiveness of small businesses, the world experience of developing small businesses, the principles of their activities, and the specific features of the economic environment in which small businesses operate, including on a regional scale, should be taken into account.

There are many obstacles and risks to the realization of potential opportunities for investment activities in Namangan region. In addition, foreign investors use bank calculations when making decisions about their capital investments. This, in turn, requires attention to the development of banking activities and the moderation of interest rates. Most importantly, in the struggle for a limited number of goods, Namangan region should pay due attention to the issue of increasing the competitiveness of the economy of small business entities.

In order to regulate foreign investment, we believe that the basis for the distribution of production sectors should be primarily the criteria for the development of the national economy and ensuring economic security. Based on this approach, foreign investments should be limited in the raw materials, energy enterprises and the financial sector. Instead, it is important that the decrease in investment income in these sectors of the national economy is compensated by domestic sources.

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