**DIVERSIFICATION OF PRODUCTION AND COMPETITIVENESS IMPROVEMENT**

Bozorov Bahodir Zuhriddinovich*,
Namangan Engineering and Technology Institute, Uzbekistan.

**Abstract**

The article analyzes the results of reforms undertaken by the Government of the Republic of Uzbekistan to diversify production and increase competitiveness in the economy of the Republic of Uzbekistan, economic and econometric analysis of the industrial sector, scientific recommendations and recommendations.

**Key words:** Modernization, Diversification, Investment, Action strategy, Competitive product, Econometric model and Prognosis.

1. **Introduction**

Reforms in the region are primarily aimed at achieving the highest possible level of modernization and diversification of industrial enterprises through foreign investment. Today, Uzbekistan's industry has all the economic, political and legal foundations for large-scale foreign investment. Based on these principles, the issues of further improving the mechanisms of attracting foreign investments for the modernization and diversification of the industrial enterprises' economies.

Attracting major international organizations and leading investors from developed countries has always been an important issue. Therefore, it is necessary to work scientifically based on the economy oriented on the economy, mainly in the sectors of industry. Accelerating the return on capital investments, paying special attention to the social and economic efficiency of investment projects depends on the way in which investments in the economy as a vibrant driving force and the investment climate of their investment environment are arranged.

In this regard, as stated in the Decree "On Strategy for Action for Further Development of the Republic of Uzbekistan":

- Conducting an active investment policy aimed at modernization, technical and technological renewal of production, implementation of production, transport and communication and social infrastructure projects.
- The country has set priorities for further modernization and diversification through the introduction of high-tech industries, first of all, to a qualitatively new level of development aimed at accelerated development of products with high added value based on deep processing of domestic raw materials is crucial in the development of industrial sectors that are the locomotives of the economy.

2. **Literature Review**

Problems related to product diversification in the context of diversification, competitiveness enhancement (Di Clemente, 2014; Carrere, 2011) diversification of production in terms of liberalization. Hausmann and Rodrik (2003), risk reduction by product diversification, Lipczynski and Wilson (2001), diversification and competitiveness depend on technological and
organizational capacities (Dosi et al., 1990). Diversification of firms based on diversification is a key factor in international market participation of Bernard et al. (2007) and others, according to the surveys.

Also, the broader differences in technological and organizational capacities of trade in sectors and countries, as well as their entry into the international markets or their share in total exports (Melitz et al., 2008), emphasize that Koopman et al. (2012) and the Coopman (2018), in relation to the relationship between growth of exports rather than extensive diversification, others have carried out scientific researches.

3. Research Methodology

In the research, using the selected statistical data, the economic analysis is carried out, the results of comparative analysis are made, econometric models are created and the multi-factor forecast of volumes of output of industrial sectors of the Republic of Uzbekistan is determined. This, in turn, serves as a basis for scientific conclusions.

4. Analysis and Results

In the sustainable development of the country, all sectors of the economy are important and the industrial sector is the leader. In the national economy, the industry performs the following roles:

- Dynamic development of such major sectors of the industry as electric power, machine building and chemical industry is a key element in the sustainable development of other industries.
- The development of the food industry reduces imports by filling the demand for products in the country.
- New jobs will be created through the development of light and other industries.
- The intellectual potential and experience of working staff working in modern technical equipment increases.

By the end of 2018, the industrial sector had the greatest impact on the growth rate of GDP in the Republic of Uzbekistan (2.1 pips) and increased by 10.6 % compared with the previous year. The positive dynamics in the industrial sector was ensured by the increase in the value added of the mining and open-end industries by 28.2 %, the value added of the manufacturing (processing) industry by 6.4 % and other industries by 4.7 % (Socio-economic situation of the Republic of Uzbekistan, 2018).

Over the past few years, industry shifts have expanded across the region, and several major industrial enterprises have emerged, with industry-leading positions. It is of particular importance that in the wake of the modernization and diversification of existing large industrial enterprises and their existing enterprises and the introduction of foreign investments, the establishment of joint ventures created with the newly established large industrial enterprises and foreign investors supplying additional products. Not only is the problem of unemployment solved, but also the social and economic potential of the local population, with the intellectual potential of the local population, the ability to work with modern technology and experience sharing with foreign partners.

By the end of 2018, the share of the manufacturing (manufacturing) industry, with the largest share, fell to the metallurgical and metallurgical industries (excluding machinery and equipment) and amounted to 24.5 %. The share of foodstuffs, beverages and tobacco products was 17.0 %, textile products, clothing, leather and related products - 16.1 %, rubber, plastics and other non-metallic mineral products - 11.3 %, manufacture of chemical products - 9.2 %, motor vehicles, trailers, semitrailers and other transport equipment - 7.4 %, electrical equipment - 3.5 % and other products of the manufacturing (manufacturing) industry production - 11.0 %.

According to this data, the share of the industrial sector in GRP was 12 %, as a result of economic reforms in the industry, the level of production increased sharply due to the modernization and diversification of the sector, as a result of the production of high quality and
export-oriented products which is 7.5% more than in 2017. Generally speaking, the development of industrial enterprises in the country's economy is evidence of the diversification and effective utilization of investment.

Today's market economy requires demand from manufacturers to produce high quality, cheap, demanded and generally competitive products. The main objective of the project is to increase the technical and economic efficiency of the industrial sector, to provide practical ways of achieving the sector's objectives. Establishing accurate and up-to-date networks in the sector ensures high economic performance.

<table>
<thead>
<tr>
<th>Table – 1: Macroeconomic indicators of the industrial sectors of the Republic of Uzbekistan</th>
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<tbody>
<tr>
<td><strong>Indicators</strong></td>
</tr>
<tr>
<td>Total volume of industrial production, bln. Soums</td>
</tr>
<tr>
<td>Investments made, bn. Soums</td>
</tr>
<tr>
<td>Number of employees, thous</td>
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</tbody>
</table>

**Source:** Malife development based on the data from the State Statistics Committee of the Republic of Uzbekistan

At the same time, in-depth analysis of the path of our country's development, today the world market conditions have changed dramatically and the growing competition in the conditions of globalization necessitates the development and implementation of a completely new approach and principles for the further development of our state.

That's why many companies around the world focus on gaining greater productivity by setting up new types of products by diversifying production. The production of high added value, while increasing productivity, creates a basis for the growth of the economy. Proper organization of production at the enterprise ensures high economic performance. The study of foreign experience, their research and use is of top priority.

As a result of the globalization of the global economy, the demand for products and services is increasing sharply. That's why many companies around the world focus on gaining greater productivity by setting up new types of products by diversifying production. Production of high added value in Uzbekistan creates a basis for the growth of our national economy. In this context, we have a multi-faceted forecast of the industrial sector of Turkey.

We forecast the industrial output of the Republic of Uzbekistan in 2000-2018, with the forecast of the gross output of the industrial sector - Y on the other line X1 and the number of lines - X2 in the network. For this purpose, it is necessary to define the correlation coefficients of the selected factor factors at the outset (Table 2).
Table – 2: Correlation coefficients of the selected factors in the gross domestic product of the industrial sector of the Republic of Uzbekistan

<table>
<thead>
<tr>
<th></th>
<th>Total industrial production capacity, Y</th>
<th>Input investment, X1</th>
<th>Number of jobs, X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total industrial production capacity, Y</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input investment, X1</td>
<td>0.734511503</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Number of jobs, X2</td>
<td>0.897395214</td>
<td>0.755125</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: The author's calculations in the EXCEL program

According to the results of the table, the factors influencing the gross product of the industrial sector of the Republic of Uzbekistan are correctly selected and the factors influencing: high investment intensity (0.734512) and number of branches (0.8897395) does not exist. This, in turn, indicates that it can continue to form a regression equation. To do this, it is desirable to determine the regression equation in the Eviews program, which allows simultaneously to examine this equation on a criterion (Table - 3).

Table – 3: Estimation of change of gross output of the industrial sector of the Republic of Uzbekistan on the basis of regression equation and imession

<table>
<thead>
<tr>
<th>Dependent Variable: Y</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.681098</td>
<td>0.273012</td>
<td>2.494755</td>
<td>0.0492</td>
</tr>
<tr>
<td>X2</td>
<td>35.5602</td>
<td>14.54059</td>
<td>2.445582</td>
<td>0.0000</td>
</tr>
<tr>
<td>C</td>
<td>-420.3</td>
<td>213.75</td>
<td>-1.966316</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared | 0.931622 Mean dependent var | 39381.88
Adjusted R-squared | 0.923075 S.D. dependent var | 33998.30
S.E. of regression | 9429.534 Akaiake info criterion | 21.28502
Sum squared resid | 1.42E+09 Schwarz criterion | 21.43414
Log likelihood | -199.2077 Hannon-Quinn criter. | 21.31026
F-statistic | 108.9975 Durbin-Watson stat | 1.933340
Prob(F-statistic) | 0.000000 |

Source: Authors' account in Eviews

Based on table results, \( t_{x1} = 2.495 \), \( t_{x2} = 2.446 \) equal to, \( df = 19 \) and \( \alpha = 0.05 \) when \( t_{tabl} = 2.093 \) The equation is statistically valid and the parameters are significant, \( \alpha = 0.05 \) and \( k1 = 3, k = 16 \) when \( F_{tabl} = 0.1151 < F = 109.0 \) were identified:

\[
Y = 0.7 \times X1 + 35.6 \times X2 - 420.3
\]  

(1)

Based on table results, the time-dependent trend equation for each selected factor is determined. According to him:
equations have been determined and the results of the predicted prognosis are calculated instead of the equation (1) above, based on time dependent variability of these equations (Table - 4).

Table – 4: Multi-factor forecast of gross product of the industrial sector of the Republic of Uzbekistan

<table>
<thead>
<tr>
<th>Years</th>
<th>Total volume of industrial production, bln. soums</th>
<th>Investments made, bn. soums</th>
<th>Number of employees, thous</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>100423,47</td>
<td>51156,7</td>
<td>1826,8</td>
</tr>
<tr>
<td>2020</td>
<td>103855,24</td>
<td>53969</td>
<td>1867,9</td>
</tr>
<tr>
<td>2021</td>
<td>107287,01</td>
<td>56781,3</td>
<td>1909</td>
</tr>
<tr>
<td>2022</td>
<td>110718,78</td>
<td>59593,6</td>
<td>1950,1</td>
</tr>
<tr>
<td>2023</td>
<td>114150,55</td>
<td>62405,9</td>
<td>1991,2</td>
</tr>
<tr>
<td>2024</td>
<td>117582,32</td>
<td>65218,2</td>
<td>2032,3</td>
</tr>
<tr>
<td>2025</td>
<td>121014,09</td>
<td>68030,5</td>
<td>2073,4</td>
</tr>
</tbody>
</table>

Source: The author's calculations in the EXCEL program

5. Conclusion and Recommendations

Based on the above, we can say that, following the modernization and diversification of industrial enterprises in the national economy, the following positive results can be achieved:

- Ensure stable operation of industrial enterprises and meet the demand for industrial products in the domestic market.
- Technically-technologically reequipped enterprises of the real sector through modernization of the industry.
- Processing of agricultural raw materials, domestic consumption through diversification of industrial enterprises.
- Increasing the production of competitive products of high quality, meeting world standards, will increase the country's export potential.
- Labor resources are provided with permanent jobs and reduced import volumes.

In summary, the main commercial purpose of diversification is to generate income and to build competitive advantages through the use of market opportunities. Diversification, including synergies, is a requirement to exploit the enterprise's material and non-material resources in full. This, in turn, reduces the risk by eliminating the dependence on a particular type of product or market, and, on the other hand, increases the risk associated with particular diversification.

6. Reference


