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ANALYSIS OF EFFECTIVENESS POLICY DOCUMENTS FOR STIMULATING INNOVATIVE ACTIVITY OF MANUFACTURING ENTERPRISES IN KAZAKHSTAN

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In Kazakhstan since 2010, state programs for industrial and innovative development have allocated significant budget funds to support and stimulate innovation in the manufacturing industry. However, innovatively, businesses remain at a low effectiveness level. In this regard, the need to assess and search for the most effective mechanisms to stimulate innovative activity of businesses moves to the forefront. The analysis carried out showed the non-fulfillment of the indicator manufacturing sector exports, provided for by the programs of industrial and innovative development.

Keywords: innovation; innovation activity; incentives; industrial and innovative development programs; manufacturing industry; enterprises; Kazakhstan.

АНАЛИЗ РЕЗУЛЬТАТИВНОСТИ ПРОГРАММНЫХ ДОКУМЕНТОВ ПО СТИМУЛИРОВАНИЮ ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЙ ОБРАБАТЫВАЮЩЕЙ ПРОМЫШЛЕННОСТИ КАЗАХСТАНА

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В Казахстане с 2010 года в рамках государственных программ индустриально-инновационного развития значительные бюджетные средства выделяются на поддержку и стимулирование инноваций в обрабатывающей промышленности. Однако результативность инновационной деятельности предприятий остается все еще на низком уровне. В этой связи

актуализируется необходимость проведения оценки и поиска наиболее эффективных механизмов стимулирования инновационной деятельности предприятий. Проведенный анализ показал невыполнение показателя объема экспорта продукции сектора обрабатывающего производства, предусмотренного программами индустриально-инновационного развития.

Ключевые слова: инновации; инновационная деятельность; стимулирование; программы индустриально-инновационного развития; обрабатывающая промышленность; предприятия; Казахстан.

Introduction. Kazakhstan pays great attention to the manufacturers' industrial and innovative development. Since the adoption and implementation of the first State Program of Forced Industrial and Innovative Development for 2010–2014 (SPFIID) [1] and subsequent programs SPIID-1 [2], SPIID-2 [3], manufacturer support has become one of the national priorities. State programs allocate significant national budget amounts for measures to support and stimulate innovative activities. Thus, the budget has allocated 878.3 billion tenge for the implementation of SPIID-1 [2] and 780.8 billion tenge for SPIID-2 [3].

Implementation of program documents to support and stimulate innovation activities of Kazakhstan manufacturing enterprises had its positive effects. In the period of 2010 to 2019, innovative activity increased from 4.6 % to 14.4 %, which makes three times. At the end of 2019, the cost of implementing innovations in the manufacturing industry amounted to 248.4 billion tenge (183.1 billion tenge in 2010). In 2019, innovative output of a manufacturing industry reached 686.6 billion tenge and increased by 4.9 times compared to 2010 (142.1 billion tenge). However, despite the positive dynamics of growth in innovation indicators, the cost effectiveness of innovation (2.7 in its prime) and the share of innovative products in GDP (1.6 %) remain at an extremely low level. Kazakhstan still lags behind many developed and a number of developing countries in terms of output and implementation of innovative products. In other words, productivity of innovation activities of manufacturing enterprises remains low. In this regard, the need to assess and search for the most effective mechanisms to stimulate innovative activity of businesses moves to the forefront.

The purpose of the article is to analyze the applied effectiveness of program documents to stimulate the innovative activity of manufacturing enterprises in Kazakhstan.

Materials and Methods. To analyze the applied effectiveness of program documents to stimulate the innovative activity of enterprises in Kazakhstan, the article studied the following documents:

- State Program of Forced Industrial and Innovative Development for 2010–2014 for 2010–2014.
- State Program of Industrial and Innovative Development of the Republic of Kazakhstan for 2015–2019 (SPIID-1).
- State Program of Industrial and Innovative Development of the Republic of Kazakhstan for 2020–2025 (SPIID-2).

To implement the research tasks set, the following scientific methods were used: analysis of scientific literature, comparative analysis, monitoring and trend analysis.

Results and Discussion. Recently, the issue of the state industrial and innovation policy effectiveness, the effectiveness of mechanisms to stimulate innovation has become particularly relevant in the scientific literature. Measures and tools to stimulate manufacturer innovation are actively discussed and intensively developed (Dudin et al., 2019 [4]; Świadek, 2018 [5]; Baymmamadli, 2020 [6]). Widely discussed are positive examples of the development of innovative activities thanks to such state incentives as: increased spending on innovations, paying increased interest in the results of scientific research, enhancement of cooperation with scientific and educational organizations.

Previous studies (Kurmanov et al., 2019 [7]; Maralov et al., 2019 [8]; Seitzhanov et al., 2020 [9]; Kurmanov et al., 2016 [10]) note that state actions can significantly hinder the

innovative activity. This largely depends on possibilities of incentive mechanisms and economic sector specifics [9–10]. In this regard, one should assess mechanisms for stimulating innovation by analyzing factors that determine the value of the corresponding motivation and entity behavior. It is incorrect to judge the effectiveness of incentive mechanisms only based on indicators of innovation activity; it is important to determine and analyze the orientation of entities in various industries to them and their behavioral effects.

Table 1 presents an analysis of the implementation of the SPFIID and SPIID-1 targets.

Table 1 – Target indicators and analysis of their implementation within the framework of the SPFIID for 2010–2014 and SPIID-1 for 2015–2019

| Program | Targets | Realization |
|---------|--|---------------------|
| SPFIID | An increase of at least 39.5 % of the GVA of the non-primary sector in real terms by 2015 against the level of 2008 | 197.9 % |
| | An increase of 43.6 % in the manufacturing industry in real terms by 2015 compared to 2008 | 140 % |
| | An increase of at least 1.5 times labor productivity in the manufacturing industry in real terms by 2015 against the level of 2008 | 2.9 times |
| | An increase of at least 30 % in the value of processed exports by 2015 compared to 2008 | - 28.2 % |
| SPIID-1 | Increase in exports of products from the manufacturing sector by 19 % | 17.9 % |
| | 22 % increase in labor productivity | 79.6 % |
| | The volume of investments in the fixed capital of the manufacturing industry in the amount of 4.5 trillion. tenge | 4.9 trillion tenge |
| | Growth in the number of people employed in the manufacturing industry to 515.3 thousand people | 584 thousand people |

Source: compiled by the authors.

In 2008, the GVA of the manufacturing industry in real terms amounted to 1,432.9 billion tenge. Using the data in Figure 1, it can be calculated that the increase in the GVA of the non-primary sector in real terms by 2015 to the level of 2008 amounted to 197.9 %. This can be explained by favorable internal and external conditions at that time for the development of the economy and industry.

In 2015, the volume of manufacturing production in real terms amounted to 6120.6 billion tenge, and in 2008 – 2546.6 billion tenge. This indicator for the period from 2008–2015 showed an increase of 3574 billion tenge or 140 %.

Labor productivity in the manufacturing industry in real terms in 2008 amounted to 2653.9 thousand tenge and in 2015 increased by 2.9 times.

In 2008, the export of non-primary products amounted to 19196.2 million US dollars and decreased by 5409.5 million US dollars or – 28.2 % compared to 2015.

An analysis of the data in Table 1 showed that the increase in exports of products from the manufacturing sector by 2019 compared to 2015 was 17.9 %, i. e. non-compliance amounted to 1.1 pp.

For the rest of the SPIID target indicator, there was an excess of the planned indicators of the development of the manufacturing sector: in 2019, compared with 2015, labor productivity increased by 79.6 %; The volume of investments in fixed assets amounted to 4.9 trillion in the amount of 2015–2019. tenge; the number of employed increased by 2019 to 515.3 thousand people.

Thus, the analysis of the implementation of the target indicators of the SPFIID and the SPIID indicates an unfavorable situation that has developed in terms of the volume of exports of products from the manufacturing sector.

Conclusion. An analysis of the applied effectiveness of the programs of industrial and innovative development of the Republic of Kazakhstan allows us to draw a number of conclusions:

- innovative development of manufacturing enterprises are a large-scale and complex task, the solution of which will not be possible in the shortest possible time. A systematic approach is needed to the decision-making process at the state level on the technological modernization of industrial sectors. In this direction, the correct guideline is the emphasis on enhancing the competitive advantages of enterprises;

- it is necessary to openly discuss the results of state programs and work on mistakes, identifying the reasons for non-fulfillment and determining the circle of responsible parties;

- it is necessary to carefully study the issues of adequate assessment of the capabilities of industrial enterprises for innovative development and setting target indicators that correspond to the prevailing conditions.

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