opción

Revista de Antropología, Ciencias de la Comunicación y de la Información, Filosofía, Lingüística y Semiótica, Problemas del Desarrollo, la Ciencia y la Tecnología

Año 36, 2020, Especial N° 27

Revista de Ciencias Humanas y Sociales
ISSN 1012-1587/ ISSNe: 2477-9385
Depósito Legal pp 198402ZU45

Universidad del Zulia
Facultad Experimental de Ciencias
Departamento de Ciencias Humanas
Maracaibo - Venezuela

Opción, Año 36, Especial No.27(2020): 779-793
ISSN 1012-1587/ISSNe: 2477-9385

Strategic priorities of Kazakhstan innovative economy development

Maydirova A.B.[1]
Department Chairman of Economics and Enterpreneurship at the L.N. Gumilev Eurasian National University
maydirova2010@gmail.com

Baizholova R.A.[2]
L.N. Gumilev Eurasian National University
baizholova_ra@enu.kz

Sanalieva L.K.[3]
L.N. Gumilev Eurasian National University
Laura_enu@mail.ru

Akhmetova G.T.[4]
Kh.Dosmukhamedov Atyrau State University
Gulia68@mail.ru

Kocherbaeva A.A.[5]
Kyrgyz- Russian Slavic University
ainura_koch@mail.ru

Abstract

In this article we examined the strategic priorities for the development of the innovative economy of Kazakhstan. We conducted an analysis of the policy that has been carried out since 2010. We determined the goal and objectives of industrial and innovative development for 2020-2025.

Keywords: Industrial and innovation policy, Competitiveness, Economics, Digitalization, Latest technological technologies.

Recibido: 20-12-2019 •Aceptado: 20-02-2020

Prioridades estratégicas del desarrollo de la economía innovadora de kazajstán

Resumen

En este artículo examinamos las prioridades estratégicas para el desarrollo de la economía innovadora de Kazajstán. Llevamos a cabo un análisis de la política que se ha llevado a cabo desde 2010. Determinamos la meta y los objetivos del desarrollo industrial e innovador para 2020-2025.

Palabras clave: Política industrial y de innovación, Competitividad, Economía, Digitalización, Últimas tecnologías tecnológicas.

1. INTRODUCTION

In 2020, the implementation of the 3rd program of industrial and innovative development will begin. In accordance with the message of the Head of State dated January 10, 2018, this Concept lays the ideological foundation, principles and approaches to the development of the State program of industrial and innovative development of the Republic of Kazakhstan for 2020-2025 (hereinafter - SPIID 2020-2025) taking into account the formation of the industry of the “digital era ". The third program of industrial and innovative development will follow the next principles:

- Continuity of industrial-innovative policy;

- Support for efficient manufacturers;

- Development of the "economy of simple things";

- Combination of industrial-innovative and spatial development;

- Synergy of industrial and innovative development and digital technologies (UPRAVLENIE EKONOMIKOJ KAZAHSTANA.2002).

Further policy of industrial and innovative development will be implemented in the context of a synchronized system of state planning. The program of industrial and innovative development will take into account the long-term goals and directions of the country's development set by the Strategy “Kazakhstan - 2050” and will be based on the initiatives of the Strategic Development Plan of the Republic of Kazakhstan until 2025 within the framework of the policy “Competitiveness of Economic Sectors” and the reform “Technological Update and Digitalization” (BAIMURATOV.2005)

2. METHODOLOGY

The policy of industrial and innovative development will maintain continuity and will be focused on solving the problems of the manufacturing industry. It will be coupled with the adopted programs to develop the investment climate, attract and retain foreign investment, promote exports, ensure mass employment, develop common infrastructure, digital infrastructure, as well as regions. Industrial and innovative development will take into account policies for the development of other sectors implemented by the State Program for

Support and Business Development, agribusiness and service development programs.

The end result of the policy of industrial and innovative development is the competitiveness of manufacturing enterprises in the domestic and foreign markets. The achievement of this result will be confirmed by the development of a new, expansion and "complication" of the existing range of products, including consumer goods and products in demand in foreign markets (ELEMESOV K.I. 2000.).

3. RESULTS AND DISCUSSION

An active policy of industrial and innovative development, which has been performed since 2010, has made it possible to lay down the basic conditions for starting the process of economic diversification - a legislative base has been created, industrial infrastructure is being continued, a system of development institutions has been built, and government support tools have been developed and tested. Measures taken within the framework of the first five-year plan allowed to maintain positive growth rates in the manufacturing industry. So, after the reduction in 2008-2009 (by 3% and 2.8%, respectively), the GVA of the manufacturing industry has taken a stable positive trajectory since 2010, outstripping the rate of real growth (in 2014, 127.8% compared to 2008). Mining sector (120.6% versus 2008). The volume of investments in fixed assets of manufacturing in 2014 compared to 2008 increased 2 times (from 357 to 729 billion tenge), real growth amounted to 155.5% (Kazakhstan: in figures and facts. 2002).

By the beginning of the of the second five-year period implementation of industrial and innovative development in 2015-2016, under the influence of the global crisis in Kazakhstan, industrial production fell for the first time in 16 years (by 1.6% and 1.1%, respectively) as a result of a decrease in the mining sector (by 2 , 5% and 2.7%, respectively). The continued growth in manufacturing in the manufacturing sector (by 0.2% and 0.6%, respectively) was ensured only due to the potential accumulated over the years of industrialization and was a confirmation of the greater stability of the manufacturing sector during the crisis (TONKOPIY M.S..2011).

The output of the manufacturing industry in 2017 amounted to 9.4 trillion tenge, GVA - 5.9 trillion tenge, the share of manufacturing in GDP - 11.2%. On achievement of the main indicators of SPIID 2015-2019, multidirectional dynamics is observed (Table 1).

Table 1: Achievement of the SPIID 2015 - 2019 target indicators by the end of 2017

Indicator	Forecast for 2017	2017 fact
Change in the value of exports of manufacturing products to the level of 2015	97.0%	111.0%
Real growth in labor productivity in the manufacturing industry compared to 2015	105.6%	102.6%
Volume of investments in fixed assets of manufacturing industry	2 352 billion tenge for 2015-2017	2 659 billion tenge for 2015-2017
Reducing energy intensity in the manufacturing industry to the level of 2014	97.0%	87.5%

Positive structural changes in the country's industry are noted. During the years of industrialization, the share of manufacturing in industry increased by 6.7 percentage points (from 35.6% in 2009 to 42.3% in 2017); in total exports - by 4.4 percentage points (from 27.8% to 32.2%, respectively); in investments in fixed assets - by 2.7 percentage points (from 8.2% to 10.9%, respectively); in gross inflow of direct foreign investments - by 16.5 percentage points (from 8.5% to 25.0%, respectively).

At the same time, a competitiveness analysis of the manufacturing industry of the Republic of Kazakhstan in comparison with partners in the EAEU showed that Kazakhstan is significantly inferior to Russia and Belarus in the ratio of investments in fixed assets to GVA and the number of enterprises per 1,000 people of the economically active population. With the exception of Armenia, Kazakhstan has the lowest Economic Complexity Index. At the same time, Kazakhstan significantly outpaces all countries of the EAEU on the productivity of the labor.

Today the pace of the development of the newest technological decisions in the branches is dictated by their scientific technological development. The share of Kazakhstan GDP, directed to research and development, at the present moment is 0.17% (in other countries, the same costs are higher: from 2.08% in China and 2.73% in the US to 4.15% in South Korea’s and 4.21% in Israel). In the long term perspective, the guiding for this can be developed countries that have a powerful raw materials sector: Canada, where the R&D costs is 1.62% of the GDP, and Australia (2.13%) (MADIYAROVA D. M .2005).

A comprehensive development of the national innovative system and an increase in competitiveness of the country is provided by the growth of the innovative activity and the increase in 7costs of the R&D.

Global trends of industrial innovation development

According to the results of the analysis, 6 global megatrends are revealed, which will make the largest impact on the processing industry of Kazakhstan. These trends must be taken into account when forming the long-term industrial innovative policy and developing the program until 2025 вето (MODELI PEREKHODA OT ADMINISTRATIVNOJ EKONOMIKI K RYNOCHNOj. 1997).

1. Technological development based on digitalization

The digitalization is a new phenomenon, which changes the entire the industry, economy, and public sector. Digital transformation of the economy gives new options for competitiveness of countries. The technologies of the digital era change the production and business model, the principles and the rules of the formation of added value chains, channels for sales, and the interaction with the consumer.

The concept of the Industry 4.0 and similar approaches based on the convergence of production and information technology into a single cyber physical system, becomes a long-term trend for the global processing industry. The main elements of the Industry 4.0 are related

to the digitalization of vertical and horizontal chains, the creation of the value, the digitalization of products and services, and the digitalization of business models and relationship with the consumer.

The industry 4.0 changes requirements for labor skills and competencies, requires access to a high-quality and high-speed digital infrastructure, between and intra-branch cooperation to ensure interoperability between design and project, production, procurement, transportation and marketing.

The innovative development and the digitalization become complementary phenomena. Nine key technologies change the industrial production: autonomous robots, multi-dimensional digital modeling, vertical and horizontal integration, industrial Internet of things, cyber security, cloud technology, additive production, augmented and virtual reality, big data and analytics. The countries that seek to competitiveness must have resources to create competencies in these technology areas (Kazakhstan: in figures and facts.2002).

2. Urbanization

The role of the global cities and large agglomerations is increasing in the medium and high-tech sectors of the processing industry. The large cities have become a source of technology and management innovation. The urbanization process and concentration

of the population, capital and knowledge complicate the local markets and increases the competitiveness of the local manufacturers.

3. The displacement of economic power towards the Asian countries

The vector of economic forces in the world has changed towards the intensively developing Asian countries. Asia demonstrates reduction of the inequality and the growth of the average class, which is the key of the consumer goods. The rapid growth of the China economy together with the achievements of the Japanese and the South Korean economies forms the second new global center, which becomes the source innovations and technology вето (TONKOPIY M. S. 2002).

4. Globalization versus regionalization

There is a changing of the nature of the economic competition. The mutually directed processes of globalization and the regionalization entail the political and socio-cultural changes that affect the economy. The developed countries, the former beneficiaries of globalization, begin to lead the protectionist and restrictive policy. At the same time, the developing Asian countries become active supporters of globalization.

The formation of regional subsystems and the integration processes is one of the most characteristic manifestations in modern international relations. The spatial context of the country becomes the strongest driver of the economy development. Global competition shifts from competition between countries to competition between blocks вето.

5. The power of communities

The Internet community gradually begins to play a tangible role in the life of the entire society, the economy and the politics of the countries. The large data and the widespread availability of the connection is one of the factors, on the basis of which the "economy of the joint consumption" is based which extends on a global scale with the accelerated temps.

With the development of the global network, the community became a significant factor of the development of business and the economy as a whole. They are the basis of the brands formation, the determination of client groups and sales channels. The possibility of the feedback, use of the recommendations and the experience other users, quick response to trends of demand, gives an impetus to develop a quality business.

The Internet strengthens political awareness of the population by providing virtually any information on events in the country and the

world. The Internet community is representing a political force, which is difficult to be controlled using the traditional power. The communities, being not limited by the state, contribute to globalization and the erasure of the borders between national states вето.

6. Strengthening the role of the state in the industrial innovative development

The governments actively perform the industrial-and-innovative policy by creating the institutional, infrastructure, financial, fiscal and other types of support, as well as initiating the scientific technology development in order to stimulate the innovative and technological development of the manufacturing industry. In particular, the efforts are directed to the development of production with a high degree of processing, sectors with the largest multiplier effect, the industrial clusters, to the creation of technological and industrial parks. Particular attention is paid to the preparation of a qualified staff base for the industry, the selection of the priority technology, improving innovative state systems and the commercialization of the innovations вето (BAIMURATOV. 2005).

4. CONCLUSION

The purpose of the industrial-innovative development for 2020 - 2025 is to create conditions for stimulation of the competitiveness of

the Kazakhstan manufacturing industry on the internal and the external markets, taking into account obligations of the Republic of Kazakhstan within the membership in international economic organizations. To reach this goal, a solution of the following tasks is needed.

The task 1. Deepening the industrialization.

For deepening industrialization, it is required to achieve a critical mass of enterprises in the manufacturing industry and an increase in their concentration at "growth points". This will allow to increase the volumes and the nomenclature of produced goods, including the consumer goods, and to create a pool of new enterprises-manufacturers using demand on external markets in the implementation of the task 2.

With increasing the productivity of labor, it is necessary to preserve the number of workers in the processing sector, due to creating of work of new production facilities launched as part of the industrialization.

The task 2. Expanding production volumes and the nomenclature of processed goods that are popular on external markets, taking into account the obligations of the Republic of Kazakhstan as part of the membership in international economic organizations.

The development of the production of processing industry goods popular in the external markets, will be developing in two directions:

1) An increase in the nomenclature of goods exported with the revealed comparative advantage. This will require steady volumes of export with reaching a share in external markets, higher than the current share of the Republic of Kazakhstan in the global goods export;

2) Increasing the "complexity" of the export basket. This will be possible if the index of the product complexity of exported goods exceeds over the current index of the economic complexity of the Republic of Kazakhstan.

The task 3. Increase the industrial power.

As part of increasing the industrial power, measures will be taken to stimulate the development of enterprises of basic production industries of new types of industrial semi-finished products and components, the provision of the necessary raw materials to enterprises of the processing industry.

Expected results of the industrial-innovative development of the Republic of Kazakhstan for 2025 veto:

1. Real growth of labor productivity in the manufacturing industry is 1.7 times to the level of 2016.

2. The growth of the export manufacturing industry volume is 2.3 times higher than the level of the 2016.

3. Increasing the Index of the economic difficulty (Harvard) to 55 place.

4. Real growth of investment in the main capital of the processing industry is 2 times to the level of 2016.

5. Increase of the number of the existing enterprises by 1000 people of the economically active population by 2.3 times to the level of 2016.

REFERENCES

BAIMURATOV. 2005. **Social'naya ekonomika [The social economy].** Almaty.

BAYZAKOVA S.B. 1997. **Modeli perekhoda ot administrativnoj ekonomiki k rynochnoj [Models of transition from an administrative economy to a market one].** Almaty: Rauan.

ELEMESOV K.I. 2002. **Ekonomicheskoe modelirovanie i real'naya politika [Economic modeling and real politics].** Kazahstan: ekonomika i zhizn' - No 3 – 4. pp. 8-12.

G.N. GAMARNIK. 2002. **Upravlenie ekonomikoj Kazahstana: metodologiya, podhody, puti realizacii [Management of the economy of Kazakhstan: methodology, approaches, and ways of implementation].** Monograph. Almaty: Economics, 280 p. - Bibliography: p. 272-278 (108 titles).

KUATOVA D.YA. 2005. **Ekonomika predpriyatiya [Enterprise economy].** Almaty.

KAZAKHSTAN: IN FIGURES AND FACTS. 2002. Almaty: Statistics.

MADIYAROVA D.M. 2005. **Mirovye torgovye rynki [World trade markets].**

TONKOPIY M.S. 2011. **Ekonomika prirodopol'zovaniya [Environmental Economics].** Almaty.

UNIVERSIDAD
DEL ZULIA

opción
Revista de Ciencias Humanas y Sociales

Año 36, Especial N° 27 (2020)

Esta revista fue editada en formato digital por el personal de la Oficina de Publicaciones Científicas de la Facultad Experimental de Ciencias, Universidad del Zulia.
Maracaibo - Venezuela

www.luz.edu.ve

www.serbi.luz.edu.ve

produccioncientifica.luz.edu.ve