

УДК 330.342

**INTERNATIONAL EXPERIENCE OF INNOVATIVE DEVELOPMENT
IN THE PERIOD OF STRUCTURAL TRANSFORMATION IN THE ECONOMY****E. N. Boiko**

*PhD in Economics, Senior Researcher, Leading Researcher
of the Department of Innovation Policy, Economics and Organization
of High Technologies of the Institute for Economics and Forecasting
of the National Academy of Sciences of Ukraine, Ukraine*

During the period of structural changes in economic, the issue of innovative development occupies an important place. It is based on the functioning of special forms of organizing innovative activities, including the creation and development of special economic zones and clusters.

In the course of the study, the main problem was identified, which concerns the imperative of the development of innovative activities of enterprises during the period of structural transformations in the economy of Ukraine and the PRC.

The purpose of the study is to determine the aspects of the activities of special forms of organizing innovative activities, which are considered on the example of the PRC and Ukraine. The main methods that were used in the process of conducting the research are analysis, statistical, comparisons, legal regulation.

Keywords: innovation; investment; competitiveness; clusters; special economic zones; structural changes.

**МЕЖДУНАРОДНЫЙ ОПЫТ ИННОВАЦИОННОГО РАЗВИТИЯ
В ПЕРИОД СТРУКТУРНОЙ ТРАНСФОРМАЦИИ В ЭКОНОМИКЕ****Е. Н. Бойко**

*Кандидат экономических наук, старший научный сотрудник,
ведущий научный сотрудник отдела инновационной политики,
экономики и организации высоких технологий*

Института экономики и прогнозирования Национальной академии наук Украины, Украина

В период структурных изменений в экономике важное место занимает вопрос инновационного развития. В его основе лежит функционирование специальных форм организации инновационной деятельности, в том числе создание и развитие специальных экономических зон и кластеров. В процессе исследования определена основная проблема, которая касается императивов развития инновационной деятельности предприятий в период структурных трансформаций в экономике Украины и КНР. Целью исследования является определение аспектов деятельности специальных форм организации инновационной деятельности, которые рассмотрены на примере КНР и Украины.

Ключевые слова: инновации; инвестиции; конкурентоспособность; кластеры; специальные экономические зоны; структурные изменения.

Activation of innovation in Ukraine and China is possible through the creation and development of organizational forms of innovation. The most common of them are special economic zones, clusters, industrial parks, technology parks and science parks, etc. Consider some of them. There are five special economic zones in China. Zone administrations (steering committees) enjoy the rights of provincial governments in regulating economic development and

developing the regulatory framework. In particular, they are independent in matters of borrowing funds on the world and domestic credit markets, placement of bonds abroad within the limits provided by the central government. At the same time, they are responsible for their obligations at their own expense.

For enterprises – residents of special economic zones, a preferential income tax rate is applied, a five-year «tax vacation» with full or partial tax exemption (the first two years the tax is not levied, the next three years 50.0 % of the current rate is paid). Until 2008, the preferential income tax rate was 15.0 % (for other Chinese companies outside the preferential areas at that time the rate was 33.0 %).

According to the report of the State Council of the People's Republic of China «On the transitional policy of corporate income tax benefits» (2007) for enterprises – residents of special economic zones from January 1, 2008 set a five-year transition period to new rates of this tax: in 2008 – 18.0 %, in 2009 – 20.0 %, in 2010 – 22.0 %, in 2011 – 24.0 %, and since 2012 – 25.0 %. This applied only to residents who were registered before March 15, 2007 and previously enjoyed a preferential tax rate of 15.0 %. As for residents who were registered after this period, from January 1, 2008 a single income tax rate was introduced for all Chinese enterprises – 25.0 %. For residents who previously used the preferential income tax rate of 24.0 % (residents of border cooperation zones, «open» coastal cities), since 2008 the rate has been increased to 25.0 %.

Residents of special economic zones engaged in industry, manufacturing, repair, and foreign trade throughout China have a value added tax rate of 17.0 %. In this case, value added tax and customs duties are not levied on imports of production equipment and materials imported by a foreign resident at the expense of its share in the enterprise. Consumer tax (excise), personal income tax and other types of taxes existing in China's special economic zones are paid at the same rates as in the rest of the country. According to the decision of local administrations, export-oriented or high-tech enterprises may be provided with non-tax benefits (reduced rate or complete exemption from payments for land, water, electricity, gas, Internet, rent, etc.).

The maximum lease terms of land plots for residents of special economic zones are: for housing construction – 70 years; for industrial use, construction of science, health, education, culture, sports – 50 years; for objects of trade, tourism, entertainment – 40 years; for complex use – 50 years. The right to lease is granted after payment of the market value of the land, land tax is not levied. Upon expiration of the lease, the contract may be renewed on an annual basis for an additional fee. Residents of special economic zones have the right to buy real estate. Real estate tax is paid in the amount of 1.2 % of its value, when renting – 12.0 % of the rental value. When selling products on the Chinese market, residents of special economic zones, including enterprises with foreign capital, can act independently or through intermediary state-owned companies. When setting prices for their products, residents of special economic zones are obliged to take into account the recommendations of local authorities that control prices. Product prices should correspond to the prices of similar goods of other Chinese enterprises.

In modern conditions of structural development, the functioning of clusters is an integral part of the state economic policy of the People's Republic of China on an innovative basis. The national program of cluster development is being implemented, where two directions of state support have been identified: initiating the creation of clusters at the expense of a significant project on a national scale; support for existing clusters and bottom-up initiatives. A cluster strategy is developed and implemented (priorities in the organization and development of clusters are defined) and a cluster program (measures, deadlines, responsible executors, etc. are defined). The cluster strategy is part of the country's national innovation strategy, in which the government should establish general economic rules and regional administrations and municipalities implement specific cluster initiatives.

Thus, the functioning of clusters is ensured through interaction between public authorities and local governments, business, science, education; forms of cluster development are diverse, they differ in national characteristics, the concept of cluster approach; the application of the cluster approach can be considered as a natural stage of economic development of the country; clusters stimulate the development of small and medium business; within the current legislation to support the creation and development of clusters operating in China, certain tools are used: the creation of clusters is with the consent of the municipal authorities and approved by the central board of special zones of high-tech industries; the central board selects the companies that are provided with benefits (information and biotechnology); much attention is paid to the development of its own innovations, raising the technological level of products in order to reduce the gap between the competitiveness of the Chinese economy and developed countries, in connection with which the government has established a network of technology licensing offices at universities. This situation contributes to the intensification of cooperation between business and academic and university science, promotes the commercialization of research results, increased competition.

Another component of cluster policy is cooperation between the Chamber of Commerce and the clusters. According to the experience of the PRC, the Chambers of Commerce and Industry are an active partner that is a member of the cluster or contributes to the creation of a favorable environment for it. Forms of cooperation can be as follows, Chamber of Commerce: participates in the activities of the cluster, provides some services to enterprises; temporarily serves enterprises that are part of the cluster in various fields (assistance to enterprises with intellectual resources, innovative support, internationalization of enterprises, etc.); Involves its members in the cluster and explains the procedure for the creation and operation of the cluster. Based on the analysis, we can draw the following conclusions: the implementation of cluster policy is based on the organization of interaction between public authorities and local governments, business, science, education; there is a variety of forms and methods of ensuring cluster policy, which differ in national characteristics, the concept of cluster approach; the application of the cluster approach can be considered as a natural stage of economic development of the country; cluster policies, programs and projects in each country are individual; clusters stimulate the development of small and medium business; within the framework of the existing legislation it is necessary to build relations in the format of a triple spiral: science – executive power – business.

World experience shows that in recent decades the process of cluster formation is active. Thus, in particular, more than 150 of them have been created in China and 50 in Ukraine. Clusters are formed under the influence of such factors as: geography of a potential cluster (its location); sector (based on statistical and documentary data), beneficiaries of financial or regional support (enterprises, higher education, research institutions, etc.).

The cluster is created according to one of several existing scenarios: in Ukraine it is mostly «bottom-up»; in China – «top down» (creation of advisory and monitoring bodies, cluster development strategies); mixed (a combination of features of the two paths «bottom up» and «top down»). In China and Ukraine it is customary to distinguish the following clusters: «inactive» (those who perform their functions not fully); «potential» (meet some key characteristics, they have a lack of production resources, lack of «critical mass»); «working» or «overperforming» (self-sufficient clusters that produce more than the total number of members of these clusters combined, if they worked separately). In 2008, the Ministry of Economy of Ukraine published a bill on cluster development. According to him, it was proposed to distinguish four types of clusters: production (association of auto, ship, aircraft); innovation-technological (geographically localized companies connected with the production of innovative products); tourist; transport and logistics.

In China and Ukraine there are other features of cluster division, which is based on the features of technological parameters: industrial (engaged in the production of traditional goods); innovative or intellectual (have a significant share of innovative products of the cluster, as well as the formed innovation infrastructure). Participants in the creation and operation of such types of clusters are: enterprises (organizations, firms) that specialize in priority economic activities; firms-suppliers of goods / services for profile enterprises; enterprises (organizations, firms) engaged in servicing public utilities (infrastructure: transport, energy, environmental, etc.); market infrastructure organizations (consulting, auditing, insurance, credit, etc.); non-profit and public organizations, associations of entrepreneurs, chambers of commerce and industry; research and educational organizations; organization of innovation infrastructure, infrastructure to support small and medium enterprises (industrial parks, technology parks, business incubators, technology transfer centers, energy saving centers, subcontracting support centers - subcontracting); centers and agencies for business development, regional and municipal development, investment attraction, export support agencies, state and municipal business support funds, credit promotion funds, etc.

The creation and development of clusters has a positive effect on the formation of the economic environment, because, depending on the types, they contribute to: the recovery of the country's economy (due to commercial concentration, uniqueness, strategy, etc.); development of high-tech industries; intensification of entrepreneurial activity, especially in the old industrial regions; growth in the share of exports of manufactured products; creation of unique opportunities for training highly qualified specialists outside the field of training (exchange of experience, cluster training centers, etc.).

References

1. Гесць В. Кластери і мережеві структури в економіці – тема досить цікава, але на сьогодні ще до кінця не вивчена... // Економіст. 2008. № 10. С. 10–11.
2. Бойко О. М. Особливості розвитку інноваційного середовища національної економіки Південної Кореї та Китаю // European scientific journal of Economic and Financial innovation. № 1 (5) (2020). С. 30–44. URL: <https://journal.eae.com.ua>.
3. Бойко О. М. Кластери як драйвери фінансової стійкості розвитку промислового сектора економіки Проблеми та перспективи забезпечення стійкості фінансової системи України: зовнішні та внутрішні аспекти : збірник матеріалів міжнародної наукової конференції (12 травня 2020 р., м. Київ) / НАН України, ДУ «Ін-т екон. та прогноз. НАН України». Електрон. дані. К., 2020. С. 130–135. URL: <http://ief.org.ua/docs/scc/15.pdf>.
4. Осташко Т. О., Венгер В. О., Бойко О. М. та ін. Модернізація економічної політики розвитку сфер діяльності та ринків: у 4-х частинах / НАН України, ДУ «Ін-т екон. та прогноз. НАН України. Частина 2: Торговельна політика: перспективи участі України в ініціативі «Один пояс, один шлях» / Монографія за ред. д-ра екон. наук, чл.-кор. НААН України Т. О. Осташко НАН України; ДУ «Ін-т екон. та прогноз. НАН України». К., 2020. С. 166–315, 325–333. URL: <http://ief.org.ua/docs/mg/326.pdf>.
5. Кирилов Ю. Є. Кластери як інструмент підвищення конкурентоспроможності національної економіки в умовах глобалізації // Ефективна економіка. 2013. № 3. URL: <http://www.economy.nayka.com.ua/?op=1&z=2608>.
6. Каніщенко Н. Г. Кластери в системі національної конкурентоспроможності / Н. Г. Каніщенко // Вісник КНУ. Серія Економіка. К. : ВПЦ «Київський університет», 2006. № 85 С. 14–16.

УДК 330.34

USE THE COBB-DOUGLAS PRODUCTION FUNCTION TO ANALYZE THE GROWTH OF THE CHINESE ECONOMY

Guo Yang

Master's Student of the Faculty of Economics of the Belarusian State University, Minsk