

ЕКОНОМІКА ТА УПРАВЛІННЯ НАЦІОНАЛЬНИМ ГОСПОДАРСТВОМ

UDC 330.341.1:338.45(477)

УДК 330.341.1:338.45(477)

V. F. Savchenko, Doctor of Economic Sciences, Professor,
Honored Economist of Ukraine,
D. V. Pustovoyt, Student

В. Ф. Савченко, д. е. н., професор,
Заслужений економіст України,
Д. В. Пустовойт, студентка

THE ANALYSIS OF INNOVATION ACTIVITY AT INDUSTRIAL ENTERPRISES OF UKRAINE**АНАЛІЗ ІННОВАЦІЙНОЇ АКТИВНОСТІ ПРОМИСЛОВИХ ПІДПРИЄМСТВ УКРАЇНИ**

Urgency of the research. Ensuring the competitiveness of industrial enterprises in Ukraine requires the formation of innovation policy with current trends. Use and commercialization of research results is a prerequisite to market new products and services that will increase the level of innovation activity of industrial enterprises and enhance their competitiveness.

Target setting. The current market environment requires activation of innovation as the most productive way to improve the country's competitiveness and its further development.

Actual scientific researches and issues analysis. Problems enhance innovation received broad enough coverage in the foreign and domestic literature. In foreign labor is I. Blanca L. Vodacheka, J. Schumpeter and others. In domestic – developments V. Heytsya, J. Bazhala, V. Denisjuk, D. Malitskoho, V. Soloviev, L. Fedulova more.

The research objective. To analyze the current state and dynamics of innovative development of industrial enterprises of Ukraine and to propose measures that will improve the efficiency of their innovation.

The statement of basic materials. The article stated that Ukraine's economy is not very favorable for implementation of scientific and technological innovation due to lack of funding. Therefore, the state and government is the revitalization of innovation.

Conclusions. Innovative activity of industrial enterprises in Ukraine in recent years did not factor in the effective restructuring and growth. The strategic task of the Ukrainian economy should be the use of innovative technologies as the only possible way to compete successfully entities.

Keywords: innovative activity; innovation; industry; innovation; innovative products; state; area.

DOI:10.25140/2410-9576-2017-1-2(10)-8-12

Relevance of the topic. Ensuring the competitiveness of industrial enterprises in Ukraine requires the formation of innovation policy that considers modern trends of development. Use and commercialization of research results is a prerequisite to market new products and services. That will increase the level of innovation activity of industrial enterprises and enhance their competitive positions in both the domestic and global markets.

Актуальність теми дослідження. Забезпечення конкурентоспроможності промислових підприємств України вимагає формування інноваційної політики з урахуванням сучасних тенденцій розвитку. Використання і комерціалізація результатів наукових досліджень є необхідною умовою виходу на ринок нових товарів і послуг, що дозволить підвищити рівень інноваційної активності промислових підприємств та посилити їх конкурентоспроможність.

Постановка проблеми. Сучасне ринкове оточення вимагає активізації інноваційної діяльності як найбільш продуктивного способу підвищення конкурентоспроможності країни і її подальшого розвитку.

Аналіз останніх досліджень і публікацій. Проблеми активізації інноваційної діяльності отримали достатньо широке освітлення в зарубіжній і вітчизняній літературі. У зарубіжній це праці І. Бланка Л. Водачека, Й. Шумпетера та інших. У вітчизняній – напрацювання В. Гейця, Ю. Бажала, В. Денісюка, Д. Маліцького, В. Соловйова, Л. Федулової тощо.

Постановка завдання. Проаналізувати сучасний стан та динаміку інноваційного розвитку промислових підприємств України, а також запропонувати заходи, що сприятимуть підвищенню ефективності їх інноваційної діяльності.

Виклад основного матеріалу. У статті констатовано, що економіка України є не зовсім сприятливою щодо впровадження наукових та технічних нововведень через недостатність фінансування. Тому перед державою та органами влади стоїть завдання активізації інноваційної діяльності.

Висновки. Інноваційна активність промислових підприємств України за останні роки не стала фактором ефективної структурної перебудови та економічного зростання. Стратегічним завданням української економіки повинне стати використання інноваційних технологій як єдино можливий напрямок успішного ведення конкурентної боротьби суб'єктів господарювання.

Ключові слова: інноваційна активність; інноваційна діяльність; промислові підприємства; інновації; інноваційна продукція; держава; регіон.

ЕКОНОМІКА ТА УПРАВЛІННЯ НАЦІОНАЛЬНИМ ГОСПОДАРСТВОМ

Problem analyzed. The economic situation of recent years in Ukraine is determined by ineffectiveness of economic reforms, imperfectness of the tax system, the negative impact of government regulation on the activities of economic entities. The fundamental factors of economic growth are resources and innovations. Since the problem of resource supply and a competitive relationship exacerbated in the last decade, the modern marketplace requires activation of innovative activity as the most productive way to improve the country's competitiveness and its further development.

Analysis of recent studies and publications. The problem of activation of the innovative activity and development on the basis of innovation became the object of scientists' research both in Ukraine and abroad. Among the foreigner studies these are the works of I. Blank, L. Vodachek, O. Vodachkova, I. Shumpeter and others. Among the native studies – the works of V. Geits, Iu. Bazhal, V. Denisuk, Iu. Makagon, D. Malitskii, O. Mykhailitska, A. Mokii, O. Salikhova, V. Semynozhenko, V. Soloviova, L. Fedulova and others. Also the analysis of innovative activity of the Ukrainian industrial enterprises should be taken into consideration.

Task setting. The purpose of the study is to analyze the current condition and dynamics of innovative development of industrial enterprises of Ukraine and to offer measures that will improve the effectiveness of their innovative activity.

Basic material investigation. One of the major factors, that characterize innovation in industrial enterprises of Ukraine, is an innovative activity which refers to the purposeful activity of industrial enterprises concerning design, creation, development and manufacture of qualitatively new types of equipment, instruments of labor, intellectual property (patents, licenses etc) and technologies. Innovative activity also concerns the introduction of advanced forms of work organization and production management [1, p. 655-656].

Ukraine's economy is not very favorable for implementation of scientific and technological innovation due to the lack of funding and a fairly low production base, inadequate fiscal and economic legislation. Therefore, the task of state and government is to intensify innovative activity.

Among the main reasons that limit the extent of innovative activity in Ukraine is the lack of investment. However, the experience of developed countries shows that the development of innovative mechanisms for financing innovation largely solves the problem of lack of funds.

One of these mechanisms is risky (greenfield) financing of the innovative technologies. Greenfield finance is an equity capital, which is a combination of financial, human and intellectual resources focused on getting windfall as a result of rapid growth in invested (innovative) company. It is characterized by a high degree of risk.

Greenfield investment is, on the one hand, the method of financing innovation sector, and on the other - an innovative form of business. The main objective of greenfield funding is that the money capital of some businessmen and intellectual abilities of some other ones (original ideas or technologies) combine in the actual branch of economy for a new company to bring income to the both types of business.

The speed of the commercialization of new prospect scientific ideas and technological developments, and hence the general competitiveness of the branches of the national economy depends largely on how successfully the greenfield mechanism functions. Understanding the role of greenfield capital in the innovation sector promotes broad support of the greenfield industry by the state. That allows this form of investment develop effectively and encourages innovation in economy. Therefore, public bodies of many leading industrialized countries consider greenfield mechanism an important component of national systems of innovation and strive for its wider use.

Defining national development priorities is equally political, economic and scientific challenge. One of its most important components is creating an effective system of greenfield financing. That will influence the successful work of innovative mechanism which is responsible for the transformation of research results to commercially viable, that is demanded by the market, product [2, p. 190-191].

Greenfield financing has two stages. During the first stage different means are accumulated from various sources: corporations, pension funds, insurance companies and foreign private investors,

ЕКОНОМІКА ТА УПРАВЛІННЯ НАЦІОНАЛЬНИМ ГОСПОДАРСТВОМ

banks and greenfield capital funds. During the second funds are distributed among the selected projects according to the results of examination.

The conditions of greenfield funding:

-a company that invests in greenfield fund, cannot be public, commendam, private or cooperative. It must be a share or become one during the investment;

-capital growth should be provided by 30-50% per year;

-a mechanism for the sale of shares must be clearly defined.

Investors placing money in greenfield capital funds also impose certain conditions: the capital is available to entrepreneurs for a particular period; only a fraction of the size of the fund may be spent on risky projects; in case of sale of shares of companies investor receives remuneration in the form of a part of greenfield capital.

The advantage of this mechanism is the ability to provide high growth rate of investment, regardless of the accumulated funds in the economy in the absence of a developed market infrastructure that serves the investment process. The disadvantages include high risk of inefficient investment decisions, leading to economic losses and mistakes in choosing investment priorities [3, p.8-9].

Output data for the analysis of innovation activity of industrial enterprises are quantitative indicators on business entities in different directions, which introduced innovations in their production [4]. Table 1 lists companies that have implemented or improved existing methods of creating new products. Enterprises, engaged in the development of new products both in relation to the market, and within specific innovative-active production are also taken into consideration.

Table 1

Industrial enterprises implementing innovations in Ukraine (units)

Enterprises	2010	2012	2014	2015	Growth rate, 2015, up to		Deviation, 2015, up to	
					2012	2014	2012	2014
Total, %	11,5	13,6	12,1	15,2	1,1	1,3	1,6	3,1
Implementation of the new technologies	2043	2188	1743	1217	556,2	69,8	-971	-526
incl. low-waste, resource-saving	479	554	447	458	82,7	102,5	-96	11
Introduction of development of innovative goods	2408	3403	3661	3136	92,2	85,7	-267	-525
among them new equipment types	663	942	1314	966	102,5	73,5	24	-348

Source: [5]

The growth rate of the number of enterprises involved in innovation in 2015 relative to 2012 and 2014 allows concluding that there is a very slight increase in the number of innovative-active enterprises compared to the year 2012 by 1.1%, and from year 2014 - by 1.3%. This suggests that there is not very active tendency in the development of innovative activity in the industry.

Analyzing the production that involves innovation in the technological sector and the development of new products in 2015 compared to the year 2012, it has been found that fewer companies, among which those with a decreasing progress trend, used the first method of innovative activity. Since the introduction of new technologies in production occurred in 2015 in 971 enterprises less than in 2012 and the difference compared to the 2014 year is 526 enterprises. Thus the number of companies that implemented technological innovation in production in recent years reduced. This means that business management doesn't pay enough attention to innovation in the production processes.

At the same time, there is quite unstable and slow increase in the number of enterprises that create innovative products. Compared to the year 2012 such companies in 2015 increased by only 24 units, while compared to the 2014 - decreased by 348 units. Thus, the development of such kind of innovative activity is important, as expanding the range of products manufactured by an enterprise by innovative items is the way of accession of such enterprise to the status of innovative-active and competitive. [5]

ЕКОНОМІКА ТА УПРАВЛІННЯ НАЦІОНАЛЬНИМ ГОСПОДАРСТВОМ

Increasing the innovation attractiveness of regions is a strategically important task, the solution of which will strongly influence restructuring, the economic climate and its growth. Today the Ukrainian innovative activity is characterized by concentration in separate, not always industrialized regions and their centers.

The share of innovative-active enterprises in Ukraine in 2015 is above average in Zaporizhzhia, Ivano-Frankivsk, Kropivnitskogo, Lviv, Mykolaiv, Odessa, Ternopil, Kharkiv, Kherson regions (Table. 2). The expenditure for innovative products was above average in Dnieper region - UAH 7568,9m; Kiev – UAH 2169,0m; Donetsk region- UAH 827,6m; Kharkiv region – UAH 667,0m and Vinnitsa region – UAH 575,3m. Most sales of innovative products launched in Donetsk region (UAH 4591,8m), Zaporizhzhia region (UAH 3162,3m), Kharkiv region (UAH 2742,4m), Poltava region (UAH 1938,5m) Sumy region (UAH 1751,9m), Kyiv (UAH 1,683,3m), Lviv region (UAH 1193,9m) and Dnieper region (UAH 1145,5m) [6].

Table 2

Innovative activity of industrial enterprises distributed by regions

Administrative units	Number of innovative-active enterprises		Expenditure on innovative activity, UAHm	Volume of innovative product sales, total, UAHm
	Total, un	In % to the total number of enterprises examined		
Ukraine	824	17,3	13813,7	23050,1
Volyn reg.	12	11,5	65,3	383,6
Dnieper reg.	63	13,0	7568,9	1145,5
Donetsk reg.	28	11,7	827,6	4591,8
Zhytomyr reg.	28	15,5	32,6	372,3
Zakarpattia reg.	14	10,1	22,5	583,2
Zaporizhzhia reg.	49	20,9	321,0	3162,3
Ivano-Frankivsk reg.	27	21,6	92,2	242,0
Kyiv reg.	44	13,3	144,8	618,8
Kropivnitska reg.	25	24,8	127,7	354,7
Luhansk reg.	9	11,3	24,3	373,2
Lviv reg.	64	19,3	277,8	1193,9
Mykolaiv reg.	29	31,2	291,6	71,2
Odessa reg.	36	19,4	49,7	544,4
Poltava reg.	30	16,2	128,5	1938,5
Rivne reg.	13	10,6	6,9	67,3
Sumy reg.	23	19,8	162,3	1751,9
Ternopil reg.	16	17,4	14,6	249,3
Kharkiv reg.	117	28,6	677,0	2742,4
Kherson reg.	19	20,7	70,1	175,4
Khmel'nitskii reg.	18	12,3	66,7	127,1
Cherkassy reg.	25	17,2	53,5	289,7
Chernivtsi reg.	9	17,0	18,8	100,0
Chernihiv reg.	15	13,3	35,0	95,9
Kyiv	86	17,3	2169,0	1683,3

Source: [6]

It should be noted that innovative-active regions preserve human, industrial and scientific-technical potential. Each region has its own specialization and untapped opportunities which can be implemented in the nearest future and provide innovative development of the territory.

The main obstacles found on the way of implementation of innovative processes are: lack of funding, lack of enterprise funds, little government support in conduction of innovative processes, weakness of infrastructure of innovative market and low motivation for improving modern technologies and implementation of new products.

Activation of innovative activity is impossible without the introduction of incentives from the state, conducting an effective scientific, technical, investment and innovation policy.

ЕКОНОМІКА ТА УПРАВЛІННЯ НАЦІОНАЛЬНИМ ГОСПОДАРСТВОМ

The main activities that contribute to the development of innovative processes in Ukraine today are:

- active government support for innovation;
- improvement of tax system;
- availability of appropriate infrastructure;
- training sufficient qualification for high-tech industries;
- creating a market of innovative products;
- providing benefits to enterprises that implement innovations and widespread practice of crediting innovative-active enterprises [7, p.120].

Conclusions. Summarizing data of scientific exploration, innovative activity of industrial enterprises in Ukraine in recent years did not become a factor of effective restructuring and economic growth. Realization of the proposed ways of activation of innovative activity will help to increase the level of innovation activity of industrial enterprises and accelerate the modernization of production.

Improving of the competitiveness of national economy requires a phased change of its orientation from export of raw materials towards high innovative technological structures, introduction of modern technologies, forming the basis of innovative models of development and knowledge economy. The key strategic objective of the Ukrainian economy should be the use of innovative technologies as the only possible way that will lead to successful competitive activity of entities on the domestic and foreign markets.

References

1. Economic Encyclopedia : in three volumes / [ed. Ed. Mocherny S. and others.]. - K. : Publishing Center "Academy", (2000). - T.1. - p. 864. [in Ukrainian].
2. Savchenko V. F. (2014). *Pryntsyvy organizatsiyi ta rehulyuvannya ventchurnoho investuvannya* [Principles of organization and regulation of venture capital] / V. F. Savchenko, D. V. Shatyрко // Bulletin ZSTU. - № 4 (70) / (2014). - pp. 190-201. [in Ukrainian].
3. Savchenko V. F. *Problemy venchurnogo investuvannya v Ukraini* [Problems of Venture Investment in Ukraine] Scientific Herald Shatyрко CHDIEU. - № 2 (18) / (2013). - pp. 7-13. [in Ukrainian].
4. Gavrilova A. A., Fritsberh M. V., Cherednichenko V.I. *Suchasnyi stan ta problemy rozvytku innovatsiyanoi aktyvnosti promyslovykh pidpryyemstv Ukrainy* [Current status and problems of innovation activity of enterprises in Ukraine] [Agricultural extension in the world]. Available at : <http://www.pdaa.edu.ua/sites/default/files/nppdaa/2011/01/060.pdf>. [in Ukrainian].
5. The official website of the State Statistics Service of Ukraine [Agricultural extension in the world]. - Implementation of innovations in the industry. Retrieved from : http://www.ukrstat.gov.ua/operativ/operativ2005/ni/ind_rik/ind_u/2002.html. [in Ukrainian].
6. Innovation activity of industrial enterprises in 2015: Statistical Yearbook. - K. : DP "Information and Publishing Center State Statistics Service of Ukraine", (2015) [Agricultural extension in the world]. Retrieved from : http://ukrstat.org/uk/druk/publicat/kat_u/publnauka_u.htm. [in Ukrainian].
7. Mykytyuk P. P., B. G. Seniv. (2009). Innovative activity : teach. guidances., - Center teach. years., 2009. - p. 320 [in Ukrainian].

Література

1. Економічна енциклопедія : у трьох томах / відп. ред. С. В. Мочерний, [та ін.]. - К. : Академія, 2000. - Т.1. - 864 с.
2. Савченко, В. Ф. Принципи організації та регулювання венчурного інвестування / В. Ф. Савченко, Д. В. Шатирко // Вісник ЖДТУ. - 2014. - № 4 (70). - С.190-201.
3. Савченко, В. Ф. Проблеми венчурного інвестування в Україні / В. Ф. Савченко, Д. В. Шатирко // Науковий вісник Чернігівського державного інституту економіки і управління. Серія 1 : Економіка. - 2013. - Вип. 2. - С. 7-13.
4. Гаврилова, О. А. Сучасний стан та проблеми розвитку інноваційної активності промислових підприємств України [Електронний ресурс] / О. А. Гаврилова, М. В. Фріцберг, В. І. Чередниченко // Наукові праці Полтавської державної аграрної академії. Серія: Економічні науки. — 2011. — Вип. 2. — Том 1. — 342 с. — Режим доступу: <http://www.pdaa.edu.ua/sites/default/files/nppdaa/2011/01/060.pdf>
5. Офіційний веб-сайт Державної служби статистики України [Електронний ресурс]. - Впровадження інновацій на промислових підприємствах. - Режим доступу : http://www.ukrstat.gov.ua/operativ/operativ2005/ni/ind_rik/ind_u/2002.html
6. Інноваційна діяльність промислових підприємств у 2015 році: статистичний збірник [Електронний ресурс] - К. : ДП «Інформаційно-видавничий центр Держстату України», 2015. - Режим доступу: http://ukrstat.org/uk/druk/publicat/kat_u/publnauka_u.htm
7. Микитюк, П. П. Інноваційна діяльність: навч. посіб. / П. П. Микитюк, Б. Г. Сенів. - К. : Центр навч. літ., 2009. - 320с.

Received for publication 13.04.2017

Бібліографічний опис для цитування :

Savchenko, V. F. The analysis of innovation activity at industrial enterprises of Ukraine / V. F. Savchenko, D. V. Pustovoyt // Науковий вісник Полісся. - 2017. - № 2 (10). Ч. 1. - С. 8-12.