

Valentyna G. Semenova<sup>1</sup>

## FORMATION OF ENTERPRISES INTELLECTUAL PROPERTY IN UKRAINE: THE STRATEGIC ASPECT

*The article studies the features of intellectual property formation at domestic enterprises under the current economic conditions, also analyzes the key indicators of enterprises' innovative activity along with the creation and use of intellectual property in the dynamics of the recent years. The main directions in the improvement of state regulation of intellectual property formation in the context of strategic development are determined.*

*Keywords:* intellectual property; innovative activity; strategic development; inventive activity; competitiveness.

Валентина Г. Семенова

## ФОРМУВАННЯ ІНТЕЛЕКТУАЛЬНОЇ ВЛАСНОСТІ ПІДПРИЄМСТВ В УКРАЇНІ: СТРАТЕГІЧНИЙ АСПЕКТ

*У статті досліджено особливості формування інтелектуальної власності вітчизняних підприємств в сучасних умовах господарювання. Проаналізовано основні показники інноваційної активності підприємств і процесів створення та використання інтелектуальної власності в динаміці останніх років. Визначено основні напрямки удосконалення державного регулювання процесів формування інтелектуальної власності в контексті стратегічного розвитку.*

*Ключові слова:* інтелектуальна власність; інноваційна діяльність; стратегічний розвиток; винахідницька діяльність; конкурентоспроможність.

*Рис. 1. Табл. 2. Літ. 19.*

Валентина Г. Семенова

## ФОРМИРОВАНИЕ ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ ПРЕДПРИЯТИЙ В УКРАИНЕ: СТРАТЕГИЧЕСКИЙ АСПЕКТ

*В статье исследованы особенности формирования интеллектуальной собственности отечественных предприятий в современных условиях хозяйствования. Проанализированы основные показатели инновационной активности предприятий и процессов создания и использования интеллектуальной собственности в динамике последних лет. Определены основные направления совершенствования государственного регулирования процессов формирования интеллектуальной собственности в контексте стратегического развития.*

*Ключевые слова:* интеллектуальная собственность; инновационная деятельность; стратегическое развитие; изобретательская деятельность; конкурентоспособность.

**Problem statement.** Development of the world economy these days is based on intensive implementation of the intellectual activities outcomes. Enterprises which are active in innovations are oriented on the results from the introduction of new technologies into their original production and also on active exchange of intelligence results at the market, on distribution of their intelligent work. In technologically developed countries the share of intangible assets in the structure of general assets of enterprises is permanently growing. Knowledge and its active use becomes an important factor for increasing enterprises' competitiveness. Since national economy is demonstrating the attempts to be oriented on global economic processes and in particular integration into European economic space, there is a need for wider introduc-

<sup>1</sup> Odesa National Economics University, Ukraine.

tion of innovative processes and activization of intellectual property formation which are the important factors for national enterprises competitiveness at both internal and external markets.

This is why the issue of determining the strategic perspectives of state support for national enterprises in the process of their intellectual property formation is critical.

**Recent publications analysis.** The role and the meaning of intellectual property as an important factor in increasing the competitiveness of enterprises within the world economic space have been considered by such authors as: W. Cohen et al. (2002), L. Fedulova (2006), B. Hirosaki (2005), O. Kendyukhov (2008), W. Landes and R. Posner (2005), O. Manzhura (2009), A. Ukrainets et al. (2007) and some others.

However, it needs to be mentioned that intellectual property as a result of innovative activity is an important strategic resource, for a particular enterprises and for national economy as a whole. The ways to improve the use of public administration tools in the formation of intellectual property need to be studied under the conditions of economic crisis exacerbation. Speeding the innovative processes and intellectual property formation are the two important directions in the reforms and reshaping of strategic policy of state in the context of globalization and Ukraine's integration into European Union.

**The aim of the article** is to ground the statement that today intellectual property of enterprises is becoming the key strategic resource for innovative development of enterprises. The objective hereby also sets the following tasks to be solved:

- analysis of innovative activity indicators for national enterprises during the recent three years;
- determining the key trends in the formation of intellectual property objects in Ukraine;
- research on the problems related to innovative development of enterprises and formation of intellectual property under current conditions;
- setting the key strategic directions in the formation of the intellectual property system in Ukraine.

The research object is the process of intellectual property formation at enterprises. Research scope in general covers the system of theoretical and practical aspects of grounding the strategic directions on the formation of intellectual property.

**Key research findings.** The World Economic Forum annually is carrying out the research to rank the countries by the level of their economic competitiveness which is further reflected in Global Competitiveness Index. The research for it is carried out on 12 generalized indicators: the quality of institutes, infrastructure, macroeconomic stability, health and primary education, higher education and professional development, efficiency of the market of goods and services, labour market efficiency, financial market development, the level of technological development, the volume of internal market, companies competitiveness and innovative potential of a country.

In 2014 this research covered 144 countries of the world. And according to the 2014 ranking, Ukraine was 76th in the general list with the global competitiveness index of 4.1. To compare, the same index for Switzerland was 5.7; for Singapore – 5.6; the USA got 5.5, same as Germany and Japan (Index..., gtmarket.ru).

The same research shows that the countries which got the highest index of global competitiveness are also characterized by the most active inventions performance of

their enterprises during the recent several years (and these countries are USA, Germany, Switzerland, Japan, France and further on) (Industrial property in numbers..., 2005: 55). Innovative activity in economically developed countries is usually based on the orientation of their economic systems on regular implementation of the most advanced achievement of scientific and technical progress, accompanied by the creation of a mechanism for direction and indirect stimulation of innovative activity of enterprises along with the formation of favourable environment for entrepreneurship.

As noted by many researchers, under the current conditions of globalization of the world economy development of particular importance becomes the commercial use of intellectual property objects, including technologies transfer which is a particularly important factor in international innovative cooperation. International transfer of technologies is particularly widely used by such countries as the USA, Japan, Finland, Israel and the UK. Technologically developed countries with higher levels of development of their intellectual property protection systems are exporting today the largest volumes of innovative commodities and production technologies, thus maintaining the leadership by all key components of national competitiveness.

Innovation leadership within the international environment is directly related to large-scale export of licences and patents, thus having a rather high level of intellectual potential (Fesenko et al., 2011: 121).

The research on the peculiarities of intellectual property formation at national enterprises is to start, in our opinion, with the analysis of innovative activities of these enterprises during the last several years.

In Ukraine only a minor share of enterprises is engaged in the processes of innovations implementation. During the recent three years the quantity of innovatively active enterprises has been decreasing all the time: in 2012 their share was 17.4%, in 2013 – already 16.8%, and in 2014 – 16.1%.

The total volume of spending on innovative activities during the period under study was the following: in 2012 it was 11.5 bln UAH, but already 7.7 bln UAH in 2014. Besides that, the share of sold innovative products in the total volume of sold industrial product was also reducing, from 3.3% in 2012 to 2.5% in 2014 (Research and Innovation..., ukrstat.gov.ua; Express issues..., ukrstat.gov.ua).

Table 1 presents the data on the quantity of enterprises and organizations in Ukraine, engaged in inventions and application of the most advanced technologies and intellectual property objects, also the including proposals on rationalization.

Analyzing the data in Table 1 we can see negative development trends, namely, the significant reduction in the quantity of enterprises engaged in the development of new technologies and new intellectual property objects during the period from 2012 till 2014.

It is needed to note here that the 2014 indicators are presented excluding the temporary occupied territory of Autonomous Republic of Crimea (with the city of Sevastopol) and also excluding the territories of the South-Eastern Ukraine where the antiterror operations are taken place now. This fact, of course, partially distort the presented results.

During the last several years the quantity of registered inventions has been gradually decreasing too: in 2012 4944 inventions were registered, while in 2014 their quantity was 4813. Importantly, nearly a half of these applications belong to foreign

enterprises (49.8% in 2012 and 49.0% in 2014). Among these foreign applicants the most active were the representatives of the USA, Germany, Switzerland, France, Japan etc. The priority segments in inventions registered in 2014 were: electrotechnics, equipment engineering, machine engineering, chemistry and chemical processes (Industrial property in numbers..., 2015: 34–35). Table 2 presented the data on industrial property objections registration during the last several years.

**Table 1. Enterprises, inventing and applying most advanced technologies and intellectual property objects, composed by the author on the data from** (Research and Innovation, ukrstat.gov.ua; Express Issues, ukrstat.gov.ua)

Enterprises by types	2012	2013	2014	Rate of growth, 2014 to 2012
	unit			%
Enterprises inventing new technologies	179	176	106	-40.8
Enterprises which have been using most advanced technologies	2134	2073	1636	-23.3
Enterprises which own the objects of intellectual property rights	419	428	333	-20.5
Enterprises using rationalization proposals	169	146	100	-40.8

**Table 2. Copyright registration for industrial property objects, 2012–2014, grouped by the author on the data from** (Industrial property in numbers..., 2015)

Industrial property objects	2012	2013	2014	Growth rate, 2014 to 2012
	unit			%
Total registered, including:	30366	30766	20677	-31.9
Inventions	3405	3635	3319	-2.5
Utility model	9951	10137	9196	-7.6
Production prototype	1541	2010	2464	59.9
Trademarks for products and services	15459	14981	14698	-4.9
Topography	2	-	-	-
Protected designation of origin	3	1	-	-
Copyright to use the protected designation of origin	5	2	-	-

Table 2 data demonstrates that in 2014 there was an increase in the quantity of protection designation of origin objects in general and also by certain types of such designations. At the same time for production prototypes there was a growth noted – by almost 60%.

In general, there is a decreasing trend for the invention activities in Ukrainian industries. Thus, in 2014 industrial enterprises applied for inventions registration 28% less than in 2013. Among those enterprises that still applied the most active were the enterprises producing machines and equipment, metallurgical enterprises and those engaged in metal products development, electrical equipment production, PC production, electronic optics, chemical and oil-chemical production (Figure 1).

Many researchers view this situation as preconditioned by the fact that most Ukrainian enterprises are using foreign innovative developments (purchasing licenses) and very seldom they engage in own innovative work. This is why today the share of Ukraine at the world markets of high-tech products is roughly around 0.1%, and

the science intensity of Ukrainian industrial production never goes above 1% (Shovkalyuk, 2013).

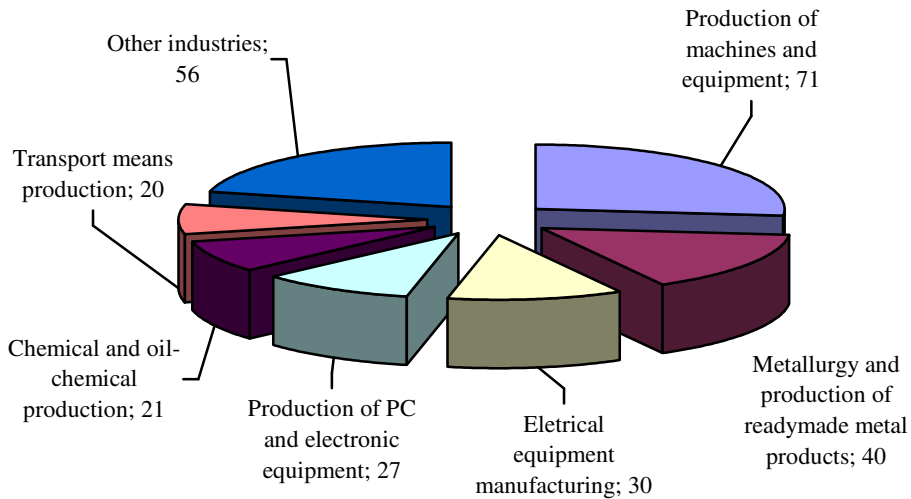


Figure 1. National enterprises which have applied for registration of inventions and utility models by types of economic activity, 2014, constructed by the author on the basis of the data from (Industrial property in numbers..., 2015: 47–48)

As noted by (Malyskiy, 2011: 10–11), in Ukraine there is no truly efficient economic mechanism which would have initiated and activated the targeted generation of knowledge, technologies, innovations and their practical implementation in order to maintain high level of socioeconomic development of the country along with life quality increase for its population. Against the background of constant attempts to reform the science sector, as noted by (Malyskiy, 2011) the mechanisms concerning the formation of the demand for knowledge, technologies and innovations remain unchanged. In our opinion, also fair and objective is the conclusion of the same author regarding the absence of powerful innovative nucleus which would attract investments into the high-tech sector. As of today the situation with financing can be often described as follows: financial capital is withdrawn from the material production field into rather independent and often speculative circulation, and thus, its future profits go not to the society as a whole, but solely to the initial owners of capital. This leads to such consequences as: growth of prices, inflation, increased poverty rates, technological stagnation – all of which cause further increase of crisis trends within the national economy.

The major problems of the intellectual property field, noted by many researchers, are the following: problems with regulation of relations between innovative subjects in the process of intellectual property creation; commercialization of intellectual property; problems with technologies transfer abroad; inefficient mechanisms of valuation and copyrights transfer of intellectual property objects; problems with legal support and legal protection of copyright and intellectual property; underdeveloped system of enterprises non-material assets accounting; problems with HR supply and management in the intellectual property field in general (Filipova and Kovtunenکو, 2013).

I. Egorov (2011) underlines that Ukraine cannot survive just by means of its raw materials basis. Therefore, public authorities need to be aware of key global trends in the current economic development, and this means that economy has to be oriented on innovative shift.

The only chance for Ukraine to get into the group of developed countries is stimulation of high-tech sectors of the national economy basing on the introduction of innovative technologies and promotion of innovative product to global markets (Egorov, 2011). At the current stage of Ukrainian economy development the most important strategic tasks would be: activation of innovative processes, increasing the competitiveness of domestic enterprises basing on the most advanced technologies and new intellectual property formation.

As noted by Y. Boshytskyi (2013), there is a necessity to develop further the market of intellectual creativity results, along with the formation of the state system of legal protection for intellectual property aiming to converting the scientific potential of the country into the most powerful resource in its economic development.

Solving these issues, as noted by this researcher, would help achieving political and economic independence for our country, its territorial integrity, prosperity of the nation, national security and general status on the international arena. Reformation of Ukrainian economy is in direct dependence from the availability of creative economic policy in the field of intellectual property which presents the most progressive form of economic relations in the current economic conditions.

We have analyzed several ways of intellectual property development suggested in (Boshytskyi, 2013; Fedulova, 2006; Kuzmych, 2013) and we consider that the key strategic directions in solving the described problems would be the following:

1. Starting the integration processes with the European Union basing on the grounds of international legal protection of intellectual property belonging to domestic enterprises.

2. Improving the legal aspects of intellectual rights protection within the framework of national legislation and adjusting the related national legislation considering the most advanced international experience in the field.

3. Shaping the efficient procedures of protecting the rights on intellectual property objects and developing the methodology for calculating the losses in the case of these rights violation.

4. Improving the procedures concerning the accession of the rights on the intellectual property objects, including simplification and speeding-up all the related procedures and reducing the red tape. As of today, overcomplications and red tape overload hinder significantly the legal protection for intellectual property objects.

5. Infrastructure development for the formation and use of intellectual property objects: introducing newest, most advanced information technologies; creation of a centralized database with information on patents for intellectual property objects; bringing in compliance with international standards the national statistical database on intellectual property.

6. Promotion of entrepreneurship activities legalization: coming out from the "shadow"; using special software to provide open access to state registers of intellectual property objects. Information openness would promote the processes of licensing and wide use of licenses for intellectual objects.

7. Personnel preparation concerning the issues of intellectual property by means of training for those whose work is directly related to the processes of creation, use and legal protection of intellectual property (entrepreneurs, developers of innovations, personnel of patent departments, patent agents etc.).

8. Awareness campaigns targeted at the formation of population legal culture. Formation of legal property system would be impossible without qualitative changes in the minds of entrepreneurs and general public, and especially without the true respect to intellectual property as such.

9. Inclusion into the international policy field concerning the intellectual property, thus protecting the interests of national enterprises; assistance to enterprises which are engaged in technologies transfer abroad and which thus are improving image of the country at international markets (Boshytskyi, 2013: 215–216; Fedulova, 2006; Kuzmich, 2013: 135–136).

**Conclusions and perspectives for further research.** Intellectual property formation is an important component of innovative processes at Ukrainian enterprises. However, as of today most domestic enterprises for various reasons are not engaged in any sort of innovative activities, and as a result of that, they do not create any intellectual objects.

The article has analyzed the statistical information on the innovative activities of enterprises and organizations in Ukraine, also studying the key indicators of their performance in the field of industrial intellectual property protection during the recent several years.

The carried out analysis reveals the negative trends, inter alia, the decrease in invention activities by industrial enterprises and slowing down the processes of intellectual property formation. Key problems are outlined concerning the formation of intellectual property, among which, in particular, is the lack of efficient mechanism for the formation of the system for innovative development and intellectual property which would further help maintaining high level of Ukraine's socioeconomic development and its population welfare growth.

Considering the growing importance of intellectual property as a vital factor for enterprises competitiveness, intensive development of science-based production and integration of the national economy into the global space, the author has determined the directions in intellectual property development.

Prospects for further research lay in the area of constructing the model of the efficient system of enterprise intellectual property management, also determining the mechanism for its development support.

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