
НАЦІОНАЛЬНА ВЛАСНІСТЬ. ОБЧИСЛЕННЯ НАЦІОНАЛЬНОГО ПРОДУКТУ

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Bratus Hanna

METHODOLOGICAL ASPECTS OF CREATING EVALUATION MODEL FOR INTELLECTUAL PROPERTY ASSESSMENT

Interregional Academy of Personnel Management, Kiev, Ukraine

The article considers the development of the intellectual property market in Ukraine as the main factor in ensuring the competitiveness of the economy. The importance of intellectual activity for the dynamic development of the economy, the preservation and enhancement of the economic potential of Ukraine and its regions, as well as ensuring its independence and security in the foreign market, is substantiated. The role and importance of intellectual property as an object of economic turnover and intellectual tools that are used to create the market value of an enterprise are determined. The features of the formation of the intellectual property market are characterized. A detailed analysis of the drivers of economic development of the leading countries of the world was carried out, which confirmed the key role of innovation in the development of economies. A thorough study of the structural-component and functional approaches made it possible to isolate and build causal chains of acting factors. A methodology is proposed for determining the integral indicator of the level of development of intellectual property, which characterizes the aggregate productivity of the development of intellectual property at a given level of innovative and intellectual potential. Based on the systematization of approaches to a comprehensive assessment of the level of development of intellectual property, which were proposed by the Information Technology and Innovation Fund, The Boston Consulting Group, INSEAD, Bloomberg Agency, and the International Monetary Fund, a system of concepts for assessing the level of development of intellectual property was formed. The developed system of concepts for assessing the level of development of intellectual property objects takes into account the specifics of the base for the formation of intellectual capital according to the criteria that characterize and ensure the effective development of intellectual property objects, and also allows you to take into account the depth of the features of drivers of their growth. The proposed multifactor model, which allows to combine quantitative and qualitative characteristics in a single subject plane, which determine the aggregate effectiveness of intellectual property objects and allows you to reconcile the source data in a single estimated indicators.

Keywords: intellectual property objects, drivers, concepts, level of development, evaluation, multicomponent model.

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Relevance of research

Changes taking place in Ukraine affect all areas of the state's population. The transfer of market relations into the sphere of intellectual activity becomes more and more clear and the formation of the intellectual property market begins. The

legislation of Ukraine, in general, takes into account these trends and creates the necessary prerequisites for the inclusion of intellectual property in the economic turnover.

Ukraine, defining its vector of further economic development in the modern geo-economic space in

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the harsh conditions of a market economy, emphasized an innovative way, which for our country, based on its potential, is not only real, but actually the only one in the current conditions of the transition of developed countries from the economy industrial type to the post-industrial economy. Ensuring the competitiveness of the economy and achieving Ukraine's success in the innovative way of its development is no longer possible without a thorough understanding of the current state of such an influential economic factor as intellectual property [1].

The problem of attracting the results of intellectual activity into financial and operational turnover is of particular importance for the dynamic development of a market economy, preserving and multiplying the economic potential of Ukraine and its regions, as well as ensuring its independence and security in the external market.

In these circumstances, the formation of a model for assessing the level of development of intellectual property of the state and its regions is an important task that needs to be solved from the standpoint of substantiation of methodological approach and the definition of effective research tools.

Analyze research and publications on a specific issue

A rather large number of scientific developments of scientists is devoted to the problems of developing intellectual property and increasing the efficiency of using intellectual resources: Yu.L. Boshytsky [2], R.O. Denisova [3], V.V. Woodpecker [4], S.F. [5], A.I. Semenchenko [6], G.N. Serdyuk [7], R.O. Stefanchuk [8], P.M. Onions [9] and others. At the same time, the methodological aspects of creating evaluation model for assessing the level of development of intellectual property objects remain insufficiently covered in the economic literature. This actualizes the issue of expanding the scientific field of research in this area.

Highlighting the unresolved part of the overall problem

At the same time, in the studies of scientists there is a polarization of opinions regarding the content of the model for assessing the level of development of intellectual property of the state and its regions, the features of its formation, the main components of intellectual property management are not defined. Therefore, the justification for the level assessment model development of intellectual property objects is of great importance since the increase in the cost of intellectualization of the regions will provide the Ukrainian economy with a competitive advantage in the field of innovation in the world market.

Formation of research goals

The purpose of scientific research is to develop a methodology for assessing the level of development of intellectual property objects of the state and its regions.

Results of the research

Intellectual property has been and remains one of the basic and necessary elements of the development of society and the progress of mankind in general. The growth of its importance as the driving force of the process of cognition and creation of material goods becomes decisive in the course of economic, social and cultural development of the countries all over the world. Being inherently not a politicized sphere, intellectual property significantly affects international relations in general, as well as the relations of individual countries and regional groups [10, p.213].

Nowadays, the role and value of intellectual property are growing rapidly, it has long become the most valuable capital of mankind. Worldwide, intellectual property is the object of economic turnover. As the value of intellectual activity, especially its results for the socio-economic development of any society, grows significantly, the demand for it is also increasing. It often becomes the object of misconduct, abuse, misuse, and therefore requires reliable and effective legal protection.

Today it is necessary to stimulate investment initiatives in the field of intellectual property for development of undertakings, support of innovations, especially introduction of new and best investments in education, training, science on the basis of use of works of art, scientific achievements and new developments in the field of information and communication technologies. For Ukraine, this task is to create an open and efficient economy, promote innovation, reward initiatives and ensure high social standards. The Government of Ukraine clearly declared the way of introducing an innovative model of structural adjustment and economic growth, establishing Ukraine as a high-tech European state to ensure accelerated development and joining the community of technologically developed countries. The innovation development strategy of Ukrainian society today is the development of the latest scientific ideas and technologies.

On the other hand, intellectual property is an intellectual tool that is used to create the market value of an enterprise.

Intellectual property is at the heart of all economic relationships, categories, phenomena, processes related to intellectual activity.

Intellectual property objects are carriers of new knowledge, which form the basis of the knowledge economy [11, p.71-72]. Objective knowledge exists

in the form of tangible objects, both protected and unprotected by the exclusive right to the results of intellectual activity. However, regardless of the presence or absence of such protection, new knowledge is present in any innovation, making its main content, the core.

The intellectual property market is a collection of sellers and buyers of protected intellectual property activities that contains new knowledge expressed in intellectual property subject to intellectual property rights.

It should be noted that new knowledge, intellectual property results and intellectual property objects gain the value only after they have been used by their creators in their own business or realized by the purchaser of the intellectual property object.

The use of the latest scientific research results, enshrined in the objects of intellectual property, is the most important condition for ensuring the competitiveness of the enterprise. However, many enterprises in post-socialist countries are poorly using their intellectual property, and there is a significant time gap between the development and implementation of innovations [11, p.73].

The results of a study of drivers of economic development in the world's leading countries show that in the last decade, innovation has played a key role in economic development. Increasing intellectual and innovation potentials play a central role in the dynamics of state growth. It should be noted that innovations are not only high-tech products, but also a complex intellectual infrastructure with extensive learning opportunities, which will significantly improve the position in the field of intellectual activity.

Considering the absence of a positive trend in the dynamic development of intellectual property and the model for their assessment, a methodology for determining the integral indicator of the level of development of intellectual property, which characterizes the aggregate development effectiveness of intellectual property at a given level of innovative and intellectual potential is proposed.

The application of the proposed indicator on the basis of structural-component and functional approaches in practical activity allows to unequivocally identify and build cause and effect chains of acting factors, identify bottlenecks in the system of managing intellectual property at the state level, and also draw conclusions about the impact of intellectual development indicators on GDP dynamics.

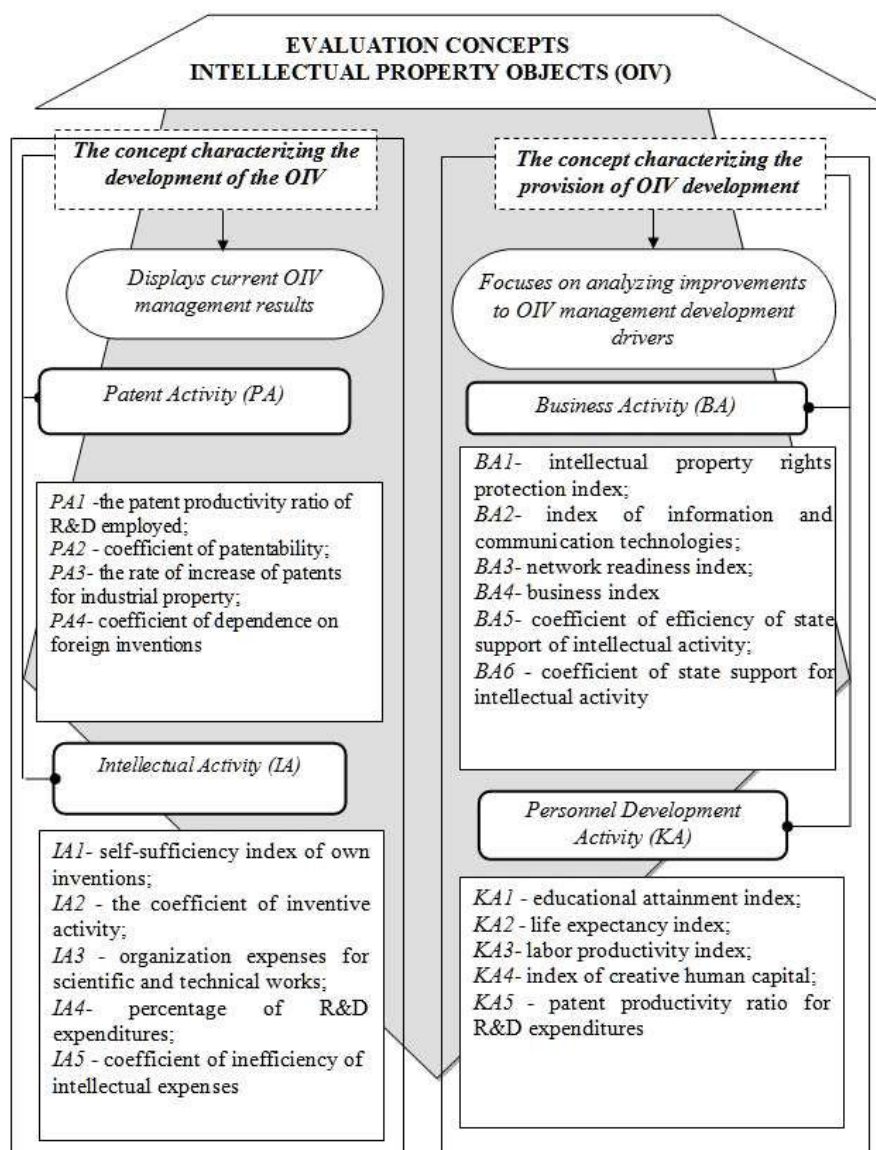
Considering the fact, that intellectual property plays a leading role as a driving force for economic

growth and prosperity, as well as the need to obtain a horizontal cross-section of intellectual property development trends in a particular region, the proposed system of indicators goes beyond the traditional dimensions of intellectual property and are the basic concepts developed by multicomponent models for assessing the level of development of intellectual property objects (Figure). The proposed system of indicators for assessing the level of development of intellectual property (OIP), formed by two basic concepts: 1) a concept characterizing the development of intellectual property (reflects the current results of management of OIP); 2) a concept that characterizes development assurance (focused on identifying areas for improvement in drivers of development of management of OIV).

To determine a system of concepts for a comprehensive assessment of the level of development of intellectual property, the calculation approaches proposed by the Information Technology and Innovation Fund, the Consulting Company The Boston Consulting Group, INSEAD, Bloomberg Agency, and the International Monetary Fund [12] are systematized, which make it possible to measure the country's readiness for transition to a knowledge-based development model and gain a commercial effect through the development and implementation of innovative solutions.

It should be noted that the proposed approach allows the combination of quantitative and qualitative characteristics in a single subject plane, which determine the aggregate efficiency of intellectual property objects and allows to harmonize the original data in a single assessment. The system of concepts for assessing the level of development of intellectual property objects takes into account the specificity of the basis of intellectual capital formation by the criteria that characterize and ensure the effective development of intellectual property objects, and also allows to take into account the features of drivers of their growth. The proposed multifactor model of assessing the level of development of intellectual property objects, unlike the existing ones, allows to take into account the basic concepts characterizing the development of intellectual property objects and ensuring their development, creates the possibility of establishing causal relationships between factors of influence and GDP, as well as identify weaknesses in the management system of objects of intellectual property..

Formally a multicomponent model assessment of the level of development of intellectual property objects is:



Model of basic concepts of assessment of the level of development of intellectual property objects

Source: by the author

$$\begin{aligned}
 OIV &= (PA \cap BA \cap KA \cap IA) = \\
 &= f \left[\begin{array}{l} PA_1 \cap BA_1 \cap KA_1 \cap IA_1 \\ PA_2 \cap BA_2 \cap KA_2 \cap IA_2 \\ PA_n \cap BA_n \cap KA_n \cap IA_n \\ PA_{n+1} \cap BA_{n+1} \cap KA_{n+1} \cap IA_{n+1} \end{array} \right] = \\
 &= PA_i \cap BA_i \cap KA_i \cap IA_i \rightarrow \max,
 \end{aligned}$$

where OIV is the model of valuation of intellectual property objects; PA – patent activity index; BA - index of business activity of business; IA - index of intellectual activity; KA - activity index of personnel development.

The basis for the development of management decisions on the effectiveness of the management of

intellectual property is the results of the assessment of its actual condition.

Conclusions and prospects for further research

As a result of the scientific research, it is proved that the influence of intellectual activity is stronger, the higher the degree of “intellectualization” of the economy, and the insufficient share of intellectual property determines the impact on the dynamics of GDP. The practical implementation of the proposed approach allows to determine the directions of improvement of the system of state management of intellectual property objects through a certain system of basic concepts that characterize and ensure their development, as well as to determine the impact of intellectual property objects on the economic development of Ukraine.

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МЕТОДОЛОГІЧНІ АСПЕКТИ ФОРМУВАННЯ МОДЕЛІ ОЦІНЮВАННЯ РІВНЯ РОЗВИТКУ ОБ'ЄКТІВ ІНТЕЛЕКТУАЛЬНОЇ ВЛАСНОСТІ

Братусь Г.А.

У статті розглянуто питання розвитку ринку інтелектуальної власності в Україні як основного чинника забезпечення конкурентоздатності економіки. Обґрунтовано значущість інтелектуальної діяльності для динамічного розвитку економіки, збереження і примноження економічного потенціалу України та її регіонів, а також забезпечення її незалежності та безпеки на зовнішньому ринку. Визначено роль і значення інтелектуальної власності як об'єкту економічного обороту та інтелектуального інструментарію, який використовується при створенні ринкової вартості підприємства. Охарактеризовано особливості формування ринку інтелектуальної власності. Здійснений детальний аналіз драйверів економічного розвитку провідних країн світу, який підтвердив ключову роль інновацій у розвитку економік. Ґрунтовне дослідження структурно-компонентного та функціонального підходів дало змогу виокремити та побудувати причинно-наслідкові ланцюги діючих факторів. Запропоновано методологію визначення інтегрального показника рівня розвитку об'єктів інтелектуальної власності, який характеризує агреговану результативність розвитку об'єктів інтелектуальної власності при даному рівні інноваційного та інтелектуального потенціалів. На основі систематизації підходів до комплексного оцінювання рівня розвитку об'єктів інтелектуальної власності, які запропоновані Фондом інформаційних технологій і інновацій, Консалтинговою компанією The Boston Consulting Group, INSEAD, Агентством Bloomberg, Міжнародним валютним фондом, сформована система концептів оцінювання рівня розвитку об'єктів інтелектуальної власності враховує специфіку бази формування інтелектуального капіталу за критеріями, що характеризують і забезпечують ефективний розвиток об'єктів інтелектуальної власності, а також дозволяє враховувати глибинні особливості драйверів їх зростання. Запропонована багатofакторна модель, яка дозволяє поєднати в єдиній предметній площині кількісні і якісні характеристики, що визначають агреговану ефективність об'єктів інтелектуальної власності та дозволяє узгодити вихідні дані в єдиних оціночних показниках.

Ключові слова: об'єкти інтелектуальної власності, драйвери, концепти, рівень розвитку, оцінювання, багатокomпонентна модель.

**МЕТОДОЛОГИЧЕСКИЕ АСПЕКТЫ ФОРМИРОВАНИЯ
МОДЕЛИ ОЦЕНКИ УРОВНЯ РАЗВИТИЯ ОБЪЕКТОВ
ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ**

Братусь А.А.

В статье рассмотрены вопросы развития рынка интеллектуальной собственности в Украине как основного фактора обеспечения конкурентоспособности экономики. Обоснована значимость интеллектуальной деятельности для динамичного развития экономики, сохранение и приумножение экономического потенциала Украины и ее регионов, а также обеспечение ее независимости и безопасности на внешнем рынке. Определены роль и значение интеллектуальной собственности как объекта экономического оборота и интеллектуального инструментария, который используется при создании рыночной стоимости предприятия. Охарактеризованы особенности формирования рынка интеллектуальной собственности. Проведенный детальный анализ драйверов экономического развития ведущих стран мира, который подтвердил ключевую роль инноваций в развитии экономик. Тщательное исследование структурно-компонентного и функционального подходов позволило выделить и построить причинно-следственные цепи действующих факторов. Предложена методология определения интегрального показателя уровня развития объектов интеллектуальной собственности, который характеризует агрегированную результативность развития объектов интеллектуальной собственности при данном уровне инновационного и интеллектуального потенциалов. На основе систематизации подходов к комплексной оценке уровня развития объектов интеллектуальной собственности, которые предложены Фондом информационных технологий и инноваций, Консалтинговой компанией The Boston Consulting Group, INSEAD, Агентством Bloomberg, Международным валютным фондом, сформирована система концептов оценки уровня развития объектов интеллектуальной собственности. Разработанная система концептов оценки уровня развития объектов интеллектуальной собственности учитывает специфику базы формирования интеллектуального капитала по критериям, характеризующим и обеспечивают эффективное развитие объектов интеллектуальной собственности, а также позволяет учитывать глубине особенности драйверов их роста. Предложенная многофакторную модель, которая позволяет совместить в единой предметной плоскости количественные и качественные характеристики, определяющие агрегированную эффективность объектов интеллектуальной собственности и позволяет согласовать исходные данные в единых оценочных показателях.

Ключевые слова: объекты интеллектуальной собственности, драйверы, концепты, уровень развития, оценка, многокомпонентная модель.

**METHODOLOGICAL ASPECTS OF CREATING
EVALUATION MODEL FOR INTELLECTUAL PROPERTY
ASSESSMENT**

Bratus Hanna

Interregional Academy of Personnel Management, Kiev, Ukraine
e-mail: anbr0208@gmail.com

Bratus H. ORCID: <https://orcid.org/0000-0001-7151-3901>

The article considers the development of the intellectual property market in Ukraine as the main factor in ensuring the competitiveness of the economy. The importance of intellectual activity for the dynamic development of the economy, the preservation and enhancement of the economic potential of Ukraine and its regions, as well as ensuring its independence and security in the foreign market, is substantiated. The role and importance of intellectual property as an object of economic turnover and intellectual tools that are used to create the market value of an enterprise are determined. The features of the formation of the intellectual property market are characterized. A detailed analysis of the drivers of economic development of the leading countries of the world was carried out, which confirmed the key role of innovation in the development of economies. A thorough study of the structural-component and functional approaches made it possible to isolate and build causal chains of acting factors. A methodology is proposed for determining the integral indicator of the level of development of intellectual property, which characterizes the aggregate productivity of the development of intellectual property at a given level of innovative and intellectual potential. Based on the systematization of approaches to a comprehensive assessment of the level of development of intellectual property, which were proposed by the Information Technology and Innovation Fund, The Boston Consulting Group, INSEAD, Bloomberg Agency, and the International Monetary Fund, a system of concepts for assessing the level of development of intellectual property was formed. The developed system of concepts for assessing the level of development of intellectual property objects takes into account the specifics of the base for the formation of intellectual capital according to the criteria that characterize and ensure the effective development of intellectual property objects, and also allows you to take into account the depth of the features of drivers of their growth. The proposed multifactor model, which allows to combine quantitative and qualitative characteristics in a single subject plane, which determine the aggregate effectiveness of intellectual property objects and allows you to reconcile the source data in a single estimated indicators.

Keywords: intellectual property objects, drivers, concepts, level of development, evaluation, multicomponent model.

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