

Technology of evaluation of intellectual property objects of enterprise with the objective of their further sale

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Abstract. The existing classification of intellectual property objects (IPO) in order to give a more precise definition of it was analyzed; the criteria for IPO valuation of an enterprise were formed; the approaches and corresponding methods of enterprise's IPO valuation were analyzed; valuation technology of enterprise's IPO for subsequent sale taking into account the suggested selection criteria was developed.

Key words: intellectual property objects; classification; valuation; criteria; approaches; method.

INTRODUCTION

According to paragraph 2 of article 54 of the Constitution of Ukraine, every legal entity has ownership rights to its intellectual property; it can freely purchase and sell them for specific purposes. [1]

According to the records of the WIPO Assembly of States members, on 20-29 September 1999, 21st would become century of economics, based on knowledge, in which intellectual property is the main driving force. [9]

Therefore, intellectual property as a result of mental creativity is a multidimensional, complex category which has been attracting increasing attention of scientists under conditions of the humanization and socialization of economic development in leading countries of the world.

In modern economic literature "intellectual property" is characterized as the coexistence, competition and combination of different theoretical and methodological approaches, formed by representatives of leading scientific schools and directions of economic research. [3, 113]

If we talk about the results of intellectual property in terms of particular enterprise or company, they are only ideas, which have certain price, but do not have a market value, which will lead to the expected result. The

problem for enterprises is correct valuation of their own intellectual property objects and gaining additional profit from their intended use or sales on the market.

Formation and effective use of scientific and technological potential of the country is practically impossible without the active participation of its business entities in exchange of products of intellectual activity. Purchase and sale of patents, licenses, know-how, engineering services, foreign business trips of experts, participation in scientific conferences, exhibitions, fairs, etc. are the forms of exchange in intellectual property (IP) that are part of the assets of innovative and active enterprises. Today's problem is that companies are not always able to properly evaluate their assets and the IPO, in order to obtain additional income. Enterprise's IPO should have some degree of legal protection, technical level, novelty, specific development, value and other characteristics which fundamentally distinguish them from existing in the market, only then above characteristics will bring to enterprise's additional revenue. Various aspects of research issues are presented in the works of local and foreign scientists: V. Alexandrov, A. Butnik-Seversky, S. Valdaytsev, V. Vitlinsky, L. Hatovskyy, V. Geets, L. Edvinson, L. Kantorovich, A. Kozyrev, P. Krainov, A. Kuzin. Quotes, A. Novosel, A. Podoprighora, A. Podoprighora, B. Prahov, T. Sakayya, B. Santo, O. Svyatotsky, M. Skrypychenko, R. Solow, T. Stewart, L. Tymoshchuk, L. Fedchenko W. Hartman, P. Tsybulov, W. Stock, S. Shuhardin, Y. Yakovets. [3-20]

Typical enterprises' IPO in Ukraine include: utility models, industrial prototypes, samples for goods and inventions, the output of which is given in the form of statistical data presented on Figure 1.

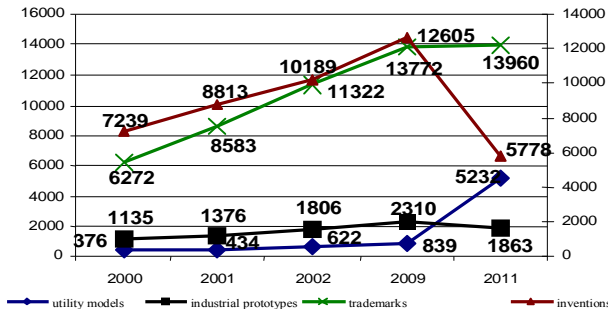


Fig. 1. The process of submission of applications for patents to the State Department of Intellectual Property of Ukraine

Source: According to the State Department of Intellectual Property of Ukraine

On Figure 1 the negative dynamics can be detected concerning patent grants for invention, samples of goods and industrial prototypes. This comes from the fact that companies underestimate their existing IPO; they are not able to find effective application for them; and they are not able effectively evaluate objects for vendition.

Due to the fact that not all enterprises in Ukraine are able to correctly value the available IPO for sale it causes this negative dynamics so statistics is inconsolable. The only thing which can be detected is that during the last two years there is constant number of patent grants for trademarks and this fact may be caused by the stabilization of commodity market.

Suggested research is aimed at heads of enterprises, institutions, companies, which possess objects of intellectual property, develop them and willing to sell them.

Table 1. Fragment of IPO classification by proposed features*

Features**	Types of enterprise's IPO
According to intellectual property rights	Objects of industrial property, innovative intellectual property objects, copyright and allied rights.
According to the direction of influence on enterprise's financial results	Intellectual property objects which are able to generate direct income, by their application into exploitation. Objects that indirectly affect the financial results of the enterprise.
According to the results of intellectual activity	Economic, social, technological, environmental and organizational.

* Formed using the sources 5,6,7

** The features proposed by the author

Table 2. The criteria for selecting alternative evaluation of intellectual property objects were determined

Criteria	Explanation
Market	the relevance of the project to market demands; commercial success of the project implementation; the level of advertising to promote suggested product to the market; competitiveness of products by price and quality; protection from obsolescence, etc.
Economic	the required amount of financing for the project implementation; the estimated annual profit; project payback; share of own funds in total project costs, etc.
Social and environmental	impact of the project implementation on the level of employment; effect of manufacturing processes, which are involved in the project implementation, on the environment, etc.
Scientific and technological	prospects of scientific and technological solutions; novelty of products and patentability of technical solutions which are used; prospects of application of expected results in future developments, etc.

Table 3. Basic approaches to determine the value of IPO

IPO types	Approaches		
Patents	Income based (financial)	Marketable (analog)	Cost-based (investment)
Trademarks	Income based	Marketable	Cost-based
Copyright	Income based	Marketable	Cost-based
Awareness about personnel	Cost-based	Income based	Marketable
Software	Cost-based	Marketable	Income based

The developed technology will help them to make the right decision on intellectual property object valuation, the necessity of selling it, forms of its calculation and the profit evaluation which were received from IPO's realization.

AIM AND OBJECTIVES

The aim is to develop technology of IPO's valuation in a particular enterprise for its further implementation.

The achievement of this aim caused the necessity the following objectives:

- to examine the existing classification of intellectual property objects for its specification;
- to form criteria of enterprise's IPO valuation;
- to analyze approaches and corresponding methods of company's IPO;
- to develop enterprise's IPO valuation technology for further selling of it, taking into account the proposed selection criteria.

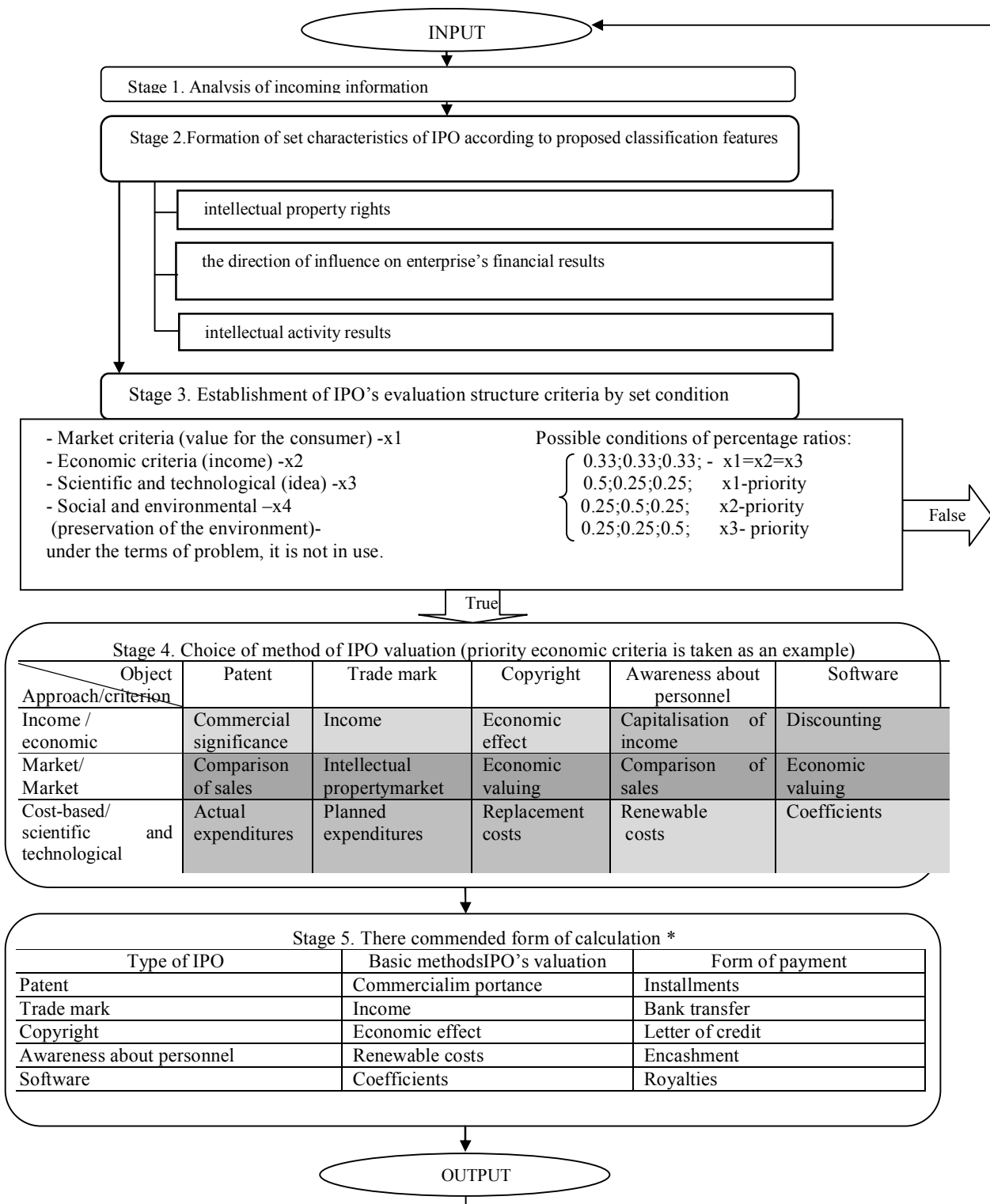
THE MAIN RESULTS OF THE RESEARCH

Results of the research, which are of scientific novelty and obtained during solving of objectives above, are the following:

- On the basis of analyzed sources the IPO's classification received further development.

Classifications which were distinguished by the author are listed in Table. 1.

The criteria for selecting alternative evaluation of intellectual property objects were determined (Table 2).



Notation conventions:

	Basic (priority) methods to determine the value of IPO
	Secondary methods to determine the value of IPO
	Ineffective methods to determine the value of IPO

Fig. 2. Technology of enterprise's IPO valuation for further implementation.

The choice of the criterion by which we measure our intellectual property objects, at some degree affects the effectiveness of expected effect of this object.

- the approaches to evaluate the market value of intellectual property objects were identified.

The first approach – cost-based (investment) includes five methods: the actual cost method, planned expenditures method, the replacement cost method, the renewable value method, the coefficient method.

The second approach – marketable (analog) includes three methods: the comparative sales method, the intellectual property market method, the expert estimations method.

The third approach – income based (financial) includes six methods: the commercial importance method, the economic benefit method, the "profit capitalization" (income) method, the discounting method, the royalties method.

Basic approaches to determine the market value of IPO are presented in table 3.

TECHNOLOGY OF ENTERPRISES' IPO VALUATION FOR FURTHER REALIZATION

The developed technology is presented in the form of the algorithm and is shown on Figure 2.

The algorithm, which is proposed by the author, includes features of types of enterprises' IPO classification and the criteria for evaluation intellectual property objects ownership. Let us consider each of the elements of the algorithm.

Stage 1: Analysis of incoming information

On this stage, we conduct: analysis of enterprise's financial statements; evaluation of its financial results; the efficiency of non-current assets; formation of data on IPO; prove expediency of its selling.

Stage 2: Classification of IPO according to proposed classification features

On this stage, we analyze the existing enterprise's IPO and classify them according to the proposed criteria: intellectual property rights; the direction of influence on enterprise's financial results; intellectual activity results.

Stage 3: Establishment of IPO's evaluation structure criteria

After the IPO's classification we form the structure of the proposed criteria (market, economic, scientific and technological, social and environmental) and we choose, on the basis of expert method, the most important for a particular enterprise. For example, if on the present stage of development profit is more important than an idea and / or benefits for consumers, the criteria structure will be the following 50%, 25%, 25%, 0%. In our assumption under the terms of problem, social and environmental criteria are not in use.

Stage 4: Choice of IPO's valuation method according to the table which was set in the algorithm.

Having analyzed approaches and methods to determine the value of IPO, in literature sources, we have identified the main approaches and corresponding methods that would be the most suitable to determine the value of IPO.

Stage 5: The recommended form of calculation when enterprise's IPO are implemented.

We have offered to make payments in accordance with the forms which are commonly used in the practice of payments between domestic enterprises. Specific form of calculation is proposed for the purchasing of particular IPO, which in our view, consistent with the objectives of both parties. The major forms of payment include: bank transfer; letter of credit; encashment. Installments and royalties can be considered as specific forms.

CONCLUSIONS

On the Ukrainian market of intellectual property, in contrast to developed markets, many of concluded contracts are concentrated in heavy industry. The share of license agreements enclosed in high-tech industries is very low. Moreover, in the total of transactions the share of patents on the disposal of intellectual property rights is also very low, especially compared to the world figures.

There is a general negative trend of innovation performance in the form of development of new products in the industrial enterprises with significant backlog in implementation of advanced technological processes and resource saving technologies.

Theoretical principles and practical guidelines which were formed can be used:

- on the macro level – during the improvement of intellectual property sales regulation in national system and during the development of trade policy of the country;

- on the meso level – in the process of international corporate strategies development; identification and competitive advantages, promotion of the region connected with intellectual property;

- on the micro level (enterprises level) – for making optimal decisions on the development of innovation on the basis of sale of intellectual property objects.

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