

PROTECTION OF INTELLECTUAL PROPERTY AND COMMERCIALIZATION OF TECHNOLOGY

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Contents

1. Conceptual Background of Intellectual Property Management in Russia
 2. Right protection of Intellectual Property in a Real Sector of the Economy of Russia and USSR
 3. The United Patent Form of Invention Protection in Russia
 4. State Regulation of the Economic Relations Concerning Intellectual Property and Technology Commercialization in Russia
- Glossary
Bibliography
Biographical Sketches

Summary

The conceptual background is presented on the economic contents and mechanisms of realization of the intellectual property in Russia. The historical information is summarized and commented on is the right protection of the intellectual property in a real sector of economy of Russia and USSR since 1812. The patent form of the invention protection, typical for the recent stage of the economic history of Russia, is revised thoroughly. The various aspects are discussed of the state regulation and its effect on the economic relations concerning the intellectual property and technology commercialization, as well as on the economic development of the country.

1. Conceptual Background of Intellectual Property Management in Russia

1.1. Introduction

The creation of the real market for intellectual products has a great meaning at the current transitional stage of Russia development on the way from socialism to a market-based economy. The modern post-industrial society is characterized by a high level of an intellectual trade and by priorities in production of high technology products. For this reason, the specific features of production and realization of intellectual product renders now a large influence to a development of economic and legal relations in each country. Especially actual this problem becomes in countries with so-called transitional economy, like Russia, from the viewpoint of their sustainable development.

The absence of a scientifically grounded and practically justified concept of a state management of the property defects privatization of the property and withdrawing of its management out from exclusive state regulation.

During the Soviet period of Russia's development, the scientific literature, legislative, and normative acts were concentrated on the legal aspects of management of the property in general. The main attention was directed mainly to the problems of realization of a substantial form of property, while objective economic bases of realization of the property rights in a legal sense being beyond the scope.

At the same time, the disclosure of the economic contents and mechanisms of realization of the intellectual property allows to follow up the legal relations of realization and management of the intellectual property and to point out unresolved problems, typical for Russia.

The intellectual property, in a legal explanation, reflects the right of the subjects of appropriation to possess, to order and to use, in that or other combination of indicated definitions, of intellectual products, and also of substantial products made on the basis of intellectual property.

Intellectual property, as an economic category, reflects a system of the economic relations (possession, ordering and usage) between the subjects of appropriation, participating in reproduction of the private intellectual property of the person-creator (or creative group), and also creation and distribution of a product of an intellectual trade both in the material, and in the non-material form.

The main problem of reproduction and realization of the intellectual property in Russia consists now in a backwardness of a system of the Russian legislation, which legislative norms do not allow to uncover a potential of the intellectual property to the full extent. It is necessary also to create all conditions of its realization as a powerful and prior origin of a social and economic development of Russia at the present stage of a global development of the world community.

1.2. Intellectual Property and Intellectual Product

The intelligence of the person and the intellectual potential of the society is the leading carrier, moving force and origin of the social, economic and cultural development of a nation at the present stage of its scientific and technological progress.

The country, society, and nation distinguish, rank and raise themselves among others in a modern world civilization through the degree of intelligence development, through the freedom of realization of a talent, and through the real conditions of creation and realization of an intellectual product. Through recognizing of an intellectual product on a highest social level, the recognizing of intelligence of the person-creator, as subject of the private intellectual property, happens also.

The subject of the intellectual property is the creative person, the person-creator, and in certain cases—the creative group.

The intelligence of the person-creator, as his/her intellectual property, consists of the two components. The first one is the natural intelligence that represents the sum total of anthropogeneous, mental, psychological, and understanding abilities of the person. The second component is the acquired intelligence, that means acquired knowledge, skills, internal culture, moral, ethical, aesthetic, and other qualitative characteristics of the person-creator.

Intellectual trade means mental and psychological process of creation of an intellectual product. This process is accompanied by inputs of a mental and psychological energy of the person-creator.

The intelligence of the person-creator is the substation of creation of an intellectual product and, on this basis, the substation of the intellectual property.

The practice of realization of the intellectual property testifies that in a civilized society only an intellectual product, created by intelligence, can be appropriated, rather than intelligence itself. Therefore, the relations concerning the intellectual property are first of all the relations concerning production and appropriation of an intellectual product.

The intellectual product is the material carrier of the intellectual property. It is why human society, country, nation, labor collective and other varieties of the subjects of the social and economic relations are interested in its creation and realizations.

The intellectual product as a product of individual and mainly of intellectual trade becomes the intellectual property by virtue of that it is exhibited as made for the first time, having new properties, internal qualities, special external indications, among which are selected usefulness, external attractiveness, aestheticism, public significance, spirit, and ecological properties, etc.

The intellectual product can be created and the intellectual property can be realized only with the assistance of the first component of the intelligence, namely, the natural intelligence of the person, this component can be qualified in the concentrated kind as the talent of the person-creator.

For this reason, the natural intelligence as the first basis component of the whole intelligence behaves to be a private property of the person-creator. The person-creator without restrictions, as their private intellectual property, can appropriate the intellectual product, created by himself/herself.

The private intellectual property, as the property of the special kind, the natural intelligence and the talent of the person-creator will be realized through the appropriation of an intellectual product, which, in turn, is created by internal anthropogeneous qualities of the person during the inputs of his/her mental, nervous, understanding abilities, other qualities and properties of the person-creator.

The second component of the intelligence as the private intellectual property, that is the acquired intelligence, can be created and realized only at the presence and direct sharing by the first component (the private natural intelligence).

In this case, the part of an intellectual product in the form of additional special qualities, external and internal characteristics, which were created with the help of acquired intelligence, becomes the property not only of the person-creator, but also of all participating in creation and reproduction of the acquired intelligence of the person-creator. Thus, among the subjects of appropriation, can be: the state, the society, the creative trade group, and the family.

This thesis seems to be an economic and legal basis of the state appropriation and realization of the intellectual property.

The properties of the private intellectual property are manifested in the forms of: the talent, the natural gifts, the special ability of the person, non-standard and specificity of thinking and understanding. The higher form of the realized intelligence or talent is the genius, recognized by the society. The private natural intellectual property, being the substation and the primary source of an intellectual product, in the lawful State can be realized in the form of private appropriation in the Law.

This part of the relations, concerning the private intellectual property, is established now in the Russian Code of Laws rather well.

The other situation is with the acquired intellectual property. This kind of an intellectual property as a new knowledge and skills becomes private only partially, on the way of a creative adaptation and transference by the person of obtained knowledge and skills on a created intellectual product. The final intellectual product can be realized in this quality in accordance with the input of the person.

In the order, determined by the Law, the intellectual property can be the property of the creative group, so-called collective intellectual property. This kind of the intellectual property results from a technologically additional system of a production of an intellectual product by the persons-creators, which is traditionally very typical for the Russian trade relations.

Thus, the intellectual product, like the sum total of considered characteristics, represents not only the private intellectual property, but also the property of a nation, of a country and of trade collective. They are sharing in the creation of the intellectual product and become the equivalent subjects of the appropriation of an intellectual product. Of course, it should find an appropriate reflection in the Law.

In fact, the great difficulties and contradictions in the Russian Law regulation of this part of the relations concerning the private intellectual property are related now with a non-dominated role of the public property in the real economy, while the public property was the main for a very long Soviet period in the history of Russia. There are many problems to be solved.

The third component part of an intellectual product creation, having reflection in final cost of the product, is the system of its practical realization based on the material pilot and commercial production, information support, advertising maintenance and a system of service infrastructure. Here prevails mental and physical work of the engineers,

experts, workers, businessmen, bankers, insurers and others, participating in finishing of an intellectual product up to the consumer. The interests of this category of the participants should be reflected in the Law also.

In the current practice, the regulation of this part of the relations, concerning the private intellectual property, is the subject of the Russian Civil Code of Laws.

1.3. General Principles of Intellectual Property Management

The final cumulative intellectual product in the multiple forms of its manifestation should become the main full object of a management and a protection for the State and its representatives.

The consumer properties of an intellectual product are depending on its type and may comprise the following characteristics: the level of the high tech included, the aesthetic, the spirit, the novelty, usefulness, the ability to satisfy new needs, efficiency, and ecological characteristics, etc.

The most well-known forms of an intellectual product are:

- The scientific development, innovation, discovery, and invention
- The engineering solution and technology
- The trademark or registered mark
- The new theoretical approach, concept or doctrine
- The picture, sculpture, literary product (prose or verses), design or interior
- The information product, program or technique
- The enterprise project or management solution

The form of the state management of an intellectual product should depend on the specific features of intellectual product creation and reproduction.

The forms of realization of an intellectual product are: spiritual, aesthetic, moral, and also objective goods (materialized form).

The features of appropriation of an intellectual product consist that it, as well as intellectual property, acts in a non-material kind. It has the latent cost forms, the high level of difficulties in estimation, imposed on the backwardness of the forms of an appropriation, and alienation in the real Russian economy.

For the State, it is very important to create the standardized approaches to an evaluation and realization of the intellectual property in the necessary and sufficient form within the structure of the Law. It is just here, where the Russian legislative activity in the filed of intellectual property is now concentrated around.

As a result, the main principles of stimulation and the State management of the intellectual property reproduction and realization should be proposed.

The evaluation of the intellectual property should be carried out including the evaluation

of the person-creator input, the state standardized approach and the market evaluation as the final stage of evaluation.

The appropriation of the materialized intellectual product on the first level consists in realization of the private “intellectual rent” as the form of realization of the private intellectual property. The current Russian authors and patent right Code of Laws partly determines the forms of an evaluation and realization of the materialized intellectual property on the first level.

The most actual problem in the stimulation of development and realization of the private intellectual property is the problem of a qualitative evaluation of a non-material intermediate, or final at a level of only, for example, an idea or an accepted effective management decision, as well as of other non-material intellectual product, created by the talent of the person-creator.

At the present stage of the Russian economy development, the scientific, educational, professional, cultural and spiritual potential of the society has more objective influence on the intellectual property creation, alongside with the talent of the person. For this reason, it is very important to solve (in the quantitative relation for all creators of the intellectual product) the problem of sharing in appropriation of an intellectual product on the second level, i.e. of an acquired intellectual property.

The realization of the intellectual property on the second level as the acquired intellectual property should be carried out through the partition and redistribution of a final market price of the intellectual product. The evaluation and sharing should be performed on the base of the expert evaluation of the natural and the acquired intellectual property, coupled with the normative evaluation of all inputs to create the intellectual product. The cost, as well as the price, of a final product created on an intellectual basis should consist of three main bodies:

- A part of a cost of final intellectual product in the form of the private intellectual property of the person as a specific value form of a product in a non-material kind. This part of a cost, which is contained in the price of a product, can carry a character of the specific intellectual rent appropriated by the person-creator of an intellectual product. It represents a part of a cost of the created and realized product, being adequate to the intellectual inputs of the person-creator.
- A part of a cost of final intellectual product, which reflects a cost of an acquired intelligence in the form of the inputs of the person, society, state, trade collective, family, in order to supply the person-creator with a knowledge, skills, etc.
- A part of a cost of final product, which is equal to the costs of its materialized embodiment and market realization.

The principles and forms of an evaluation of an intellectual product and, on this basis, of relating intellectual property, should be determined in the Law, keeping the structure of three chosen blocks.

Each part of a cost of an intellectual product, to be appropriated on the level determined

by the Law, should reproduce creative forces: the person-creator, the creative group, and the management organization operating on behalf of the state.

For example, the cost of the book or the picture should be evaluated:

- From the items of the copyright of the person-creator, which economic basis is his/her private intellectual property (private intellectual rent). An expert evaluation here is mostly suitable
- From the items of the cost of the inputs of a society, the state and the trade collective into the created final product (the conditions for an intellectual trade, the teaching of the person-creator), including the part of the private intellectual property of the person while applying his/her knowledge and skills in the course of creation of an intellectual product
- From the items of the cost evaluation for the manufacturers of materialized product. Here the costs are accumulated of all servicing and ensuring productions, experimental laboratories, etc., which costs consist in a materialized embodiment and in a market realization of a final product created on the basis of the intellectual property.

The very complex task of intellectual property management is a real task to be solved in a modern Russian economic history, faced now with the problem of adaptation to the open market demands from the prominent world economics. To the contrary of the economic development of the Western countries, the strong state regulations and the various forms of the public property were common and typical features of the Russian economy for many centuries. It is why the changes in the intellectual property management are going so hard in Russia.

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Bibliography

Dertouzos M. L. et al. (1989). *Made In America: Regaining The Productive Edge*, 344 pp. Cambridge, MA: MIT Press. ISBN: 0262041006. [This presents extensive knowledge concerning international competition in technological innovations.]

Korchagin A. D., ed. (1995). *How To Protect The Intellectual Property In Russia. Right And Economic Management: reference book*, [in Russian], 335 pp. Infra-M, Moscow, Russia. ISBN 5862251421. [This presents a comprehensive historical survey of the Laws and Regulations on the intellectual property rights protection in Russia.]

Roussel P. A. et al. (1991). *Third Generation R&D: Managing The Link To Corporate Strategy*, 192 pp. Boston, MA: Harvard Business School Press. ISBN 0875842526. [This work provides a deep analysis of the industrial research management.]

Technology Commercialization: Russian Challenges, American Lessons (1998). 138pp. Washington, DC: National Academy Press. ISBN 0309061946. [This presents a comprehensive discussion of the technology commercialization experiences in the United States and Russia.]

Biographical Sketches

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