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THE ROLE OF TRADE SECRET IN THE INVENTION PROTECTION SYSTEM

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Abstract: *The authors deal with trade secret (know-how) in a narrower, technical sense that includes various types of secret technical knowledge, skills and experience and which as such is suitable for the protection of the invention. The legislator generally regulates this institute in the context of some other issues such as technology transfer, although some states have special laws. According to the author, it is essential that the legislator recognizes this form of protection of inventions and to sanction disloyal actions, and everything else is a matter of the holder of know-how. In relation to a patent, know-how can have a completely independent status, but it can also complement it. It most often protects inventions that cannot fully satisfy the conditions of patentability, especially the invention level. In general, the level of protection that know-how provides is weaker than patent protection. There is also a risk that third parties may obtain information that is the subject of trade secret through “reversible engineering”. Based on a de facto monopoly, know-how gives an exclusive position in the market compared to competitors who do not have that knowledge. This position on the market is sometimes stronger than the patent itself. However, the author's view is that know-how as such is not a serious alternative to the patent system. The question is whether it is realistic in the conditions of rapid development of modern technologies to preserve secrecy to the extent that it was once possible.*

Keywords: *know-how; patent; invention; technology transfer*

INTRODUCTION

From the early periods of human society, there were people such as: tribal elders, priests, sorcerers and healers, who had secret knowledge related to the treatment of humans and animals, some crafts, but also other needs of primitive cultures. Knowledge and skills were jealously guarded and passed down for generations within the same families. Certain persons and organizations within the church also had knowledge of this type, especially certain monasteries and monastic orders. This type of intellectual property of primitive peoples has often been the subject of exchange between different communities. Even today, not only in primitive cultures, there are cases when certain people have this knowledge and that it is passed on, most often within certain families. A special type of secret knowledge referred to military skills such as: preparation of gunpowder, production of explosive devices, various devices (such as catapults, Greek fire), etc. This was the privilege of rulers who had trusted persons who possessed this knowledge and who were engaged in this activity. Having in mind the above, although know-how was just recently officially recognized as an intellectual property right, we can freely say that it is the oldest form of intellectual property protection.

The term know-how itself has been taken from English language and has become common in other languages, without translation and transcription. In the business world, a trade secret, in the broadest sense, is any confidential information that is not readily available and that provides a company with a competitive advantage over other companies. For the purposes of this analysis, only trade secret in the narrower, technical sense is relevant, which includes various types of secret technical knowledge, skills and experience, which is most often referred to as know-how. Initially, know-how was used as a trade term, and gradually, with the development of case law, it became a common legal institute in the Anglo-Saxon states. With the development of international trade, this institute was practically taken over by all civilized countries. Interestingly, as early as 1916, the Committee for the Protection of Industrial Property of the International Chamber of Commerce concluded that: secret know-how is property that has economic value and must be legally protected (International Chamber of Commerce, 2014). In economic terms, know-how, like other intellectual property rights, is part of company's assets. Manufacturers and service providers, in order to gain a competitive advantage in the market, are forced to improve the production process daily and to improve the quality of their products and services. The result of these daily improvements are

sometimes inventions, and more often their small improvements, and skills and experience in the application of certain technologies.

Inventions as such are most often protected by a patent. Exceptionally, inventions in some fields of technology may be protected by other intellectual property rights, in particular by integrated circuit topography, useful model or plant variety rights. Regarding the possibility of legal protection of these intellectual achievements by a patent, two situations are possible: that it is an invention that their inventor does not want to protect with a patent or that it is a knowledge and experience that, most often due to lack of invention level, cannot be protected by a patent. The most common reason why an inventor does not accept patent protection is that he does not want his invention to be published. As a reminder, all patent applications are published eighteen months after the filing, and the know-how aims to preserve the invention as secret knowledge and to use it as such. The protection of inventions by trade secrets is not in itself in conflict with the patent system. This was confirmed by the US Supreme Court, which interpreted that the US Congress, by adopting patent laws, had the exclusive intention of offering inventors a limited monopoly in exchange for making their findings public, and not to put pressure on inventors to enter this exchange excluding any other alternative to protect their inventions (*Kewanee Oil Co. v. Bicron*, 1974). In many technical fields, the inventor may choose to keep his invention a trade secret or to protect it with a patent. Some manufacturers, especially small and medium enterprises, due to the high costs required to obtain patent protection, especially international, are not able to protect their products with a patent. In the past decade, it is evident that the producers of some products, such as e.g., mobile phones, some do not report their findings at all. These companies, given the slow patent recognition procedure, which can take several years depending on the field of technology, and the fact that their products quickly “go out of fashion”, opted for alternative forms of protection, such as know-how. According to some estimates, especially in some areas of technology such as e.g., information technology, only a small part of the inventions is protected by a patent, while most are kept as secret knowledge or de facto monopoly of those who own and use it. According to Jorda: “more than 90% of all new technologies are protected by trade secrets, and over 80% of all technology license and transfer agreements cover know-how, i.e., trade secrets or are mixed agreements related to patents and know-how.” (Jorda, 2014). This carries a great risk because the right holder does not have the opportunity to demand protection against persons who come to the same technology through reversible technology, i.e., their own research. Therefore, inventors need to

think carefully about how to protect their invention. However, some technologies manage to preserve certain knowledge as a trade secret for a long period of time. A typical example is one of the components of the recipe for the preparation of Coca-Cola, which has been stored for more than a century. In the same way, one of the newer technologies is preserved, the source code of Windows, as well as the source code of any computer program. However, in this case, a complete analogy is not possible because computer programs are usually protected as literary works in the sense of the Berne Convention for the Protection of Literary and Artistic Works, so a possible violation of the source code would be a violation of the author's work as such

1. DEFINITION OF A TRADE SECRET

In theory, there is no consensus on the definition of know-how. According to Parivodic, the definitions went from the narrowest understanding that know-how belongs to the use of patents and is not independent of it, to modern definitions that include not only technical and practical knowledge and experience but also any commercial knowledge and experience that can be used while performing business. (Parivodic, 2003). The notion of know-how, despite many attempts at precise and exhaustive definition, remains controversial and undefined in theory for now. Most authors believe that trade secrets and know-how are synonymous, although there are other understandings. In our theory, the prevailing understanding is that only know-how that includes knowledge and experience of a technical nature is considered know-how in terms of industrial property rights (Markovic, 2018). There are also different understandings that start from a completely different classification of know-how and similar phenomena. According to the definition from a study by the World Intellectual Property Organization, know-how is part of a broader concept of a trade secret. According to this understanding, trade secret is a broad term and can refer to: product composition and design, production methods or know-how, production processes, market research results, consumer profiles, lists of suppliers and customers, price lists, financial data, business plans, business strategies, promotional strategies, marketing plans, sales plans and methods, distribution methods, design, drawings, architectural plans, technical plans and drawings, maps, etc. (WIPO, 2006).

The comprehensive definition of know-how in the technical sense is given by the Uniform Law on Trade Secrets of the USA, which was adopted by most American states.

Under this law, know-how is information, including formula, pattern, compilation, program, device, method, technique, or process, that creates independent actual or potential economic value from what is not generally known, or not easily determined by permitted means by other persons who may derive economic benefit from its disclosure and who have made reasonable efforts under the circumstances of the case to keep it secret (US Uniform Trade Secrets Act, 1985). According to the Law on Protection of Trade Secrets of the Republic of Serbia, trade secrets are considered to be secret because they are not, in whole or when it comes to their structure and the sum of all of its components, generally known or easily accessible to persons who normally come into contact with this type of information in the course of their activities; which have commercial value because they constitute a secret and when the person lawfully controlling them has taken reasonable steps under the circumstances to preserve their secrecy. (Law on the Protection of Trade Secrets, 2021) It follows from the above definition that our legislator opted for the broader concept of trade secrets and does not distinguish between know-how that includes knowledge and experience of a technical nature from other types of trade secrets. However, this definition is also applicable to trade secrets as knowledge and experience of a technical nature.

2. CONDITIONS FOR THE PROTECTION OF A TRADE SECRET

Traditionally, know-how is, as a rule, only partially regulated, by regulations governing technology transfer and unfair competition. Today, under the influence of TRIPS, many countries pass special laws regulating trade secrets. Legally speaking, know-how is a de facto market monopoly that produces certain legal consequences and enjoys legal protection under certain conditions. Given that a trade secret may contain the invention and other technical information regarding the conditions of protection to a certain extent, an analogy with the protection of the invention by a patent is possible. However, the conditions for the protection of an invention by a trade secret are “milder” than the conditions for the protection of an invention by a patent. The key condition for the existence of this right is secrecy. Know-how actually exists as long as there is secrecy. According to most theorists, second element that is necessary for the existence of know-how is its transferability in terms of the possibility of its transfer to other persons, most often by a technology transfer agreement. The third element required by some theorists is the technical nature of know-how. As is well known, the main

condition for the protection of a patent invention is novelty. When it comes to trade secrets in terms of novelty, the prevailing opinion is that this element is covered by the concept of secrecy. By its nature, know-how is no secret to a wider circle of people who have this information based on employment contracts, company capital ownership and management functions. Therefore, in order to protect, it is most common practice to conclude a non-disclosure agreement with these persons. All these persons, as well as all other persons who obtain the know-how in a lawful manner, have an obligation to keep this information. In case of violation of the right to keep the information in their possession, contractual liability applies to these persons.

It should be emphasized that the subject of protection of know-how, as with other intellectual property rights, is an intangible good, in this case an invention, which should be distinguished from its fixation on a material carrier. Mentioning the content of know-how in the text of the license agreement is rarely practiced, because it would unnecessarily burden the text of the agreement, so as a rule, know-how is submitted as a separate document. A special document most often is represented as: business manuals, projects, models, and technical documentation on paper, which are increasingly fixed on modern text media, sound and images, such as DVD, CD and USB, etc., and which after conclusion of the contract is handed over to the acquirer. Measures to protect trade secrets in each case are determined in accordance with the risk assessment of illegal disclosure, acquisition and use of information that is a trade secret. The protection of trade secrets lasts as long as the information that represents that secret is kept confidential.

3. CIVIL LAW PROTECTION

There are three types of protection of know-how: criminal law, civil law protection and protection under unfair competition regulations. It is up to the holder of the right, and the specific circumstances for which the form of protection will be determined, although cumulative protection is also possible. Criminal protection should be something that is by its nature an exception and limited only to organized crime, because, as emphasized in TRIPS, intellectual property rights are by their nature private rights (Sarac, 2015). On this occasion, we will give a brief overview of protection according to the regulations on unfair competition and civil protection. According to the Law on Trade, the act of unfair competition, among other things, includes the

acquisition, use and disclosure of trade secrets without the consent of its owner in order to aggravate its position on the market (Law on Trade 2019). Violation of good business practices means all actions taken in order to obstruct free competition in the market, which causes or may cause damage to a competitor or other natural or legal person, and in particular:

- breach of contractual provisions on professional secrecy;
- abuse of business trust;
- industrial or commercial espionage, fraud, and such.

Civil law protection of a trade secret is regulated in detail by the Law on Protection of Trade Secrets. In the event of a breach of a trade secret, the holder of the trade secret may file a lawsuit to request the following: determination of the breach; cessation of the violation, prohibition of the use or disclosure of trade secret; prohibition of production and placing on the market, import and export of infringing goods, withdrawal or destruction of infringing goods, destruction in whole or in part of documents containing trade secrets. Against a person who has violated a trade secret, the holder or licensee may file a lawsuit to claim damages according to the general rules on damages (Law on Protection of Trade Secrets, 2021). Having in mind that these are economic disputes, the plaintiff can also request the public announcement of the verdict. Trade secrets are also regulated by the Law on Obligations. It is envisaged that the agent is obliged to keep the trade secret of his client, which he learned about, in connection with confidential work during the contract and after its termination. It is also possible to apply the provisions of the Law on Obligations, which refers to tortious liability for unauthorized disclosure and abuse of trade secrets. The Labor Law stipulates that one of the reasons for termination of employment is the disclosure of trade, official or other secrets determined by law, collective agreement or general act.

4. INTERNATIONAL TREATIES AND REGULATIONS OF THE EUROPEAN UNION

Several initiatives related to the legal protection of know-how have emerged within the International Association for the Protection of Intellectual Property (AIPPI). The Melbourne Resolution of 1974 provided a definition of know-how, as well as the basic principles of legal protection, with a proposal to add appropriate provisions to the Paris

Convention for the Protection of Industrial Property, and the Copenhagen Resolution of 1994 provided that confidential commercial and industrial information should be protected as a trade secret. This resolution also stipulates that any breach of professional secrecy should constitute an act of unfair competition, in particular: industrial and commercial espionage; use or disclosure of a trade secret obtained in an unauthorized manner from the owner; unauthorized use or disclosure of a trade secret by a person to whom the owner has entrusted a trade secret; unauthorized use or disclosure of a trade secret without the consent of the owner received from the person entrusted to it or which occurred in an unauthorized manner, if the user knew or should have been aware of this fact (AIPPI Resolution, 1994). The resolutions adopted by this association have had a great impact on many international documents, including TRIPS.

The first legally binding international agreement which stipulates the obligation to protect undisclosed information, and which corresponds in terms of content to know-how, is the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which is an annex to the Agreement establishing the World Trade Organization. Article 39 (2) of TRIPS provides that natural and legal persons shall be able to: prevent information lawfully under their control from being disclosed, acquired, or used by others without their consent in a manner contrary to fair trade practices with the condition that such information is secret, in the sense that it is not generally known within the circle of persons who normally operate with that type of information; that it has commercial value as a secret and that the person legally controlling it has taken reasonable steps under specific conditions to keep the information secret (TRIPS 1995). All member states have an obligation to harmonize their legislation with the provisions of TRIPS, otherwise they risk a launch of an effective system of sanctions against them within the World Trade Organization.

In the European Union, know-how is regulated within the framework of regulations governing technology transfer, namely EC Regulation No. 772/2004 on the application of Article 81 (3) of the Treaty to certain categories of technology transfer agreements dated April 27, 2004. This directive governs the know-how for the needs of agreements law, namely technology transfer agreements. Although this seems rather confusing at first glance, the European legislator adheres to the traditional definition of know-how as it was built by legal science. According to Article 1 of this Regulation, “know-how” means a body of unpatented technical information that is the result of experience and testing and that is secret, significant and identified. With regard to the

definition of “secrecy”, given that it is debatable whether absolute secrecy exists at all, the European legislator has accepted the concept of relative secrecy, so it is sufficient that the information in question is not generally known, easily accessible and cannot be obtained outside the licensor's business. This information is considered “relevant” if it is useful for the production of certain products. With regard to the third condition, it is envisaged that the practical information is described in a sufficiently comprehensible manner to verify that the conditions of secrecy and relevance are met. According to the directive, a pure know-how agreement is the licensing of unpatented technical information, which are descriptions of production processes, recipes, formulas, three-dimensional and two-dimensional design, in order to encourage the dissemination of technical knowledge, to encourage the production of technically sophisticated products. (Commission Regulation on the application of Article 85 (3) of the Treaty to certain categories of technology transfer agreements, 2004).

5. TRADING SECRET AND INVENTION

The know-how is as such, suitable for the protection of the invention. It most often protects inventions that cannot fully satisfy the conditions of patentability, especially the inventive level. In principle, know-how is suitable for the protection of all inventions in all fields of technology. Know-how as well as patent provides a monopoly position in the market. Having in mind the development of modern technologies, this form of protection of inventions is the most suitable for process inventions, although its application for protection of product inventions is not excluded. In relation to the patent, it has certain advantages. First of all, the protection of know-how is not limited in time, no formalities are required in terms of submitting an application for entry in the appropriate registers and the protection is completely free. Know-how also has certain shortcomings in relation to the patent. First of all, the level of protection that know-how provides is, in general, weaker than patent protection. There is also a danger that third parties will obtain trade secrets through “reversible engineering”. Namely, the know-how does not provide exclusive rights in relation to third parties who came to the same invention through independent work. According to some research, information on new products and processes is made available to competitors within an average of one year. Moreover, there is a danger that these individuals will protect the technology in question with a patent. Therefore, it would be useful for companies that opt for this

protection system to adopt an appropriate document regulating the protection of a trade secret, to limit the number of persons who have access to this information, as well as to conclude appropriate custody agreements regarding the keeping of a trade secret with employees and business partners.

It is known in business circles that the one who developed a certain idea and who first appeared on the market with a certain product has a competitive advantage over others. In order to preserve this advantage, one sometimes does not need patent protection. Persons who acquire patent rights, know-how and other transferring rights under technology transfer agreements also gain a competitive advantage. However, it is impossible for everyone to develop all the technologies and companies must cooperate. Knowledge transfer is a key to developing competitive advantage, and companies are increasingly dependent on partnerships with external partners (Milagres, Burcharth 2018). Therefore, many companies use different systems of cross-licensing patents and know-how in a way that both appear as both a transferor and an acquirer of technologies. This often leads to antitrust violations (OECD, 19). In relation to a patent, know-how can have a completely independent status, and can complement it. Although the inventor is in principle obliged to describe the invention in the application in a sufficiently clear manner that the average skilled person can perform it, know-how often appears as a supplement to the invention without which knowledge the economic exploitation of the invention is not possible. Companies that have organized access to the intellectual property protection system break down new technologies into inventions that are protected by patents and supporting technical knowledge that they keep as know-how. Practice has shown that in some technical fields, especially in the chemical industry, a patent license without the transfer of associated technical knowledge is often not sufficient for the commercial use of patented technology (Damnjanovic 2011). The use of this technology often requires the services of experts, the use of adequate laboratories, product control and such. Therefore, the whole package of rights is most often transferred by the Technology Transfer Agreement, namely patent and know-how, but also some other rights such as trademarks, industrial designs and copyrights. In situations where it is not possible to use a patent without supporting knowledge, know-how can multiply the value of the patent license agreement itself. Due to the great economic value of know-how, some authors view the patent as a younger right that gives only additional protection to technical and trade secrets. Therefore, powerful multinational companies protect their most important technological achievements with a patent. However, they are practically inapplicable

without the additional knowledge and experience contained in the know-how. When transferring technologies, they sell this package in its entirety. Interestingly, many technology transfer agreements contain restrictive clauses in the sense that ownership of all subsequent patent and know-how improvements belongs to the transferor.

CONCLUSION

Know-how is by its nature a de facto monopoly on the market that produces certain legal consequences and enjoys legal protection under certain conditions. Although there are different definitions, only know-how that encompasses knowledge and experience of a technical nature is considered know-how in terms of industrial property rights. In most countries know-how is regulated only in part, by the way, within the framework of laws that regulate some other issues, primarily technology transfer and trade. However, some countries, including the Republic of Serbia, have regulated the issue of legal protection of trade secrets by a special law. In theory, and not without reason, there is an opinion that a detailed codification of this area as a whole would mean a negation of what know-how actually is. It is essential that the legislator recognizes this form of protection of inventions and to sanction disloyal actions, and everything else is a matter for the holder of know-how. Unlike a patent, know-how is not an exclusive right, and it does not give its holder any legal monopoly. However, bearing in mind that it gives a monopoly position, it resembles a patent and other exclusive intellectual property rights. Based on a de facto monopoly, i.e., the actual possession of certain knowledge, know-how gives an exclusive position in the market in relation to competitors who do not have that knowledge. This de facto monopoly can often, however, be stronger than a legal monopoly. That is why it is actually a factual law whose exclusive character derives from its position on the market, and not from the monopoly provided by the state. Therefore, a trade secret cannot be considered an intellectual property right in the classical sense. Nevertheless, trade secrets are traditionally studied within the framework of intellectual property rights. Due to the same subject of protection, its connection with the patent is so strong that in terms of some technologies it is difficult to determine what is protected by a patent and what is a trade secret. In times of crisis in the patent system, know-how is often seen as the intellectual property right to which the future belongs. The question is whether it is at all possible, in the conditions of rapid development of digital technologies and

nanotechnologies, to preserve secrecy to the extent that it was once possible. Take the example of inventions in the field of pharmacy. The question is, is it possible for this type of invention to be kept as secret knowledge at a time when the human genome has been deciphered. Nowadays, it has almost become a routine matter to determine the structure of a certain chemical substance or composition. Disclosure of secret knowledge according to this methodology does not constitute a violation of rights. Unlike a patent, know-how does not provide protection in relation to reversible technology, i.e., the one who later came up with the invention through independent work. The development of these technologies is becoming a challenge to know-how to a greater extent than the development of digital technologies is a challenge to copyright. In this context, the question arises, whether know-how is a thing of the past or an intellectual property right to which the future belongs. A common place in the science of patent law is that the system of patent protection is irreplaceable. Faced with such challenges in the upcoming decades, trade secrets will have to be radically redefined..

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