Revista Jurídica unicuritiba

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

COMERCIALIZAÇÃO DE PATENTE – ALGUMAS BARREIRAS LEGAIS À INOVAÇÃO NO VIETNÃ A PARTIR DA CHINA VISÃO COMPARATIVA

COMMERCIALIZATION OF PATENT – SOME LEGAL BARRIERS TO INNOVATION IN VIETNAM FROM CHINA COMPARATIVE VIEW

PHAN QUOC NGUYEN
Associate Professor Dr. Phan Quoc Nguyen, University of Law, Vietnam National University, Hanoi, Vietnam. Corresponding Author, E-mail: pgnguyen77@yahoo.com ORCID ID: https://orcid.org/0000-0002-0579-9179

NGUYEN THI HOANG HANH
Dr. National Office of Intellectual Property of Vietnam. E-mail: hanhnh77@gmail.com. ORCID ID: https://orcid.org/0009-0008-0351-5145

NGUYEN THI THUY HANG
Dr., Department for Science and Technology, Vietnam National University, Hanoi, Vietnam
E-mail: hangcsk@vnu.edu.vn ORCID ID: https://orcid.org/0009-0003-7514-7904

RESUMO

Objetivo: O artigo explora as barreiras legais enfrentadas na comercialização de patentes no Vietnã, com uma análise comparativa das políticas da China. O objetivo principal é identificar os obstáculos jurídicos que limitam a inovação e sugerir melhorias para as regulamentações vietnamitas.

Métodos: Foram utilizados métodos de análise doutrinária e pesquisa estatística para examinar as principais disposições legais vietnamitas sobre a comercialização de patentes, comparando-as com as leis chinesas. A pesquisa se concentra na exploração voluntária de patentes, incluindo comercialização, transferência de direitos, licenciamento e uso de patentes como garantia.

Resultados: Os resultados indicam que, embora o Vietnã tenha avançado nas regulamentações de propriedade intelectual, ainda existem lacunas significativas na legislação quanto à comercialização de patentes. A comparação com a China mostrou que políticas mais abrangentes e detalhadas são necessárias para promover a inovação e o desenvolvimento econômico no Vietnã.

Conclusões: O estudo conclui que é fundamental revisar e aprimorar as leis de propriedade intelectual no Vietnã para incentivar a exploração comercial de patentes, garantindo um ambiente jurídico que favoreça a inovação. Sugere-se a adoção de políticas mais detalhadas e integradas, como as implementadas na China.

Palavras-chave: Comercialização. Patentes. Direitos de Propriedade Intelectual. Lei de Propriedade Intelectual. Vietnã, China.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

ABSTRACT

Objective: The article explores the legal barriers faced in patent commercialization in Vietnam, with a comparative analysis of China's policies. The main objective is to identify the legal obstacles that limit innovation and propose improvements to Vietnam's regulations.

Methods: Doctrinal analysis and statistical research methods were employed to examine the main legal provisions on patent commercialization in Vietnam, comparing them with Chinese laws. The research focuses on voluntary patent commercialization, including self-commercialization, transfer of rights, licensing, and using patents as collateral.

Results: The findings indicate that although Vietnam has made progress in intellectual property regulations, significant gaps remain in the legislation regarding patent commercialization. The comparison with China demonstrated the need for more comprehensive and detailed policies to promote innovation and economic development in Vietnam.

Conclusions: The study concludes that it is crucial to revise and enhance Vietnam's intellectual property laws to encourage patent commercialization and create a legal environment conducive to innovation. It is recommended to adopt more detailed and integrated policies, similar to those implemented in China.

Keywords: Commercialization. Patent. Intellectual Property Rights. Law on Intellectual Property. Vietnam. China.

1 INTRODUCTION

Law on Intellectual Property (IP) of Vietnam considers patent as one of the most crucial intellectual property rights (IPRs). Patent is one specific intellectual asset, is one kind of intangible asset, which plays the vital role in the innovation and economic development of one country. Patent not only promotes the research and innovation but also attracts investment capital and technology transfer. Reasonable and effective usage of this kind of asset increase income for companies, contribute to the economic growth and competitiveness of one country.

Under the international economic integration context, with the improvement and development of laws on the protection and enforcement of IPRs according to the World Trade Organization (WTO)'s standards, Vietnamese Government have been focused on the commercial exploitation of patent.

In detail, law on IP, laws on technology transfer, on commerce, on investment, on enterprises and secure transactions have the good regulations such as the promotion of patent owners to exploit their patents; the enhancement of transfer of IPRs of patent from

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

universities, research institutes to enterprises; the stimulation of organizations, individuals to contribute capital, mortgage of patent rights for doing business, setting up companies, in particular start-ups, spin-offs; the facilitation of small and medium enterprises to innovate their technologies, etc.

However, the commercial exploitation of patent is rather new in the reality of commercial exploitation of intellectual assets in Vietnam. Moreover, in tradition and legal practice, IPRs in general and industrial property rights in particular are mentioned in civil rights. It means that patent is stipulated in legal rules with the protection of IPRs (static position), not with the commercial exploitation (dynamic position). Therefore, Vietnam's legal rules have many limitation and shortcomings in making detailed the commercial exploitation of patent.

Being aware of the importance of the commercial exploitation of patent in the process of international economic integration, which is the vital condition for the development of country in the future time, Vietnamese Government has been revising its legal rules on IPRs to satisfy committments in international trade conventions and treaties such as CPTPP[1], EVFTA[2], RCEP[3], etc.

In fact, Vietnam needs to modify Law on IP, Law on Technology Transfer and other relevant sublaws in the direction of more commercial exploitation of patent for the scientific-technological and social-economic development. For achieving these objectives, study on the Vietnamese legal rules of patent commercial exploitation forms and practice is very necessary. China has been launching relevant policies and laws to promote invention activities and commercialize patents from the perspective of supply and demand since 1985. The synthesis of China's policies applied to the creation and commercialization of patents in particular and to the intellectual property system in general has achieved remarkable results. In fact, the number of domestic and abroad patent applications of China has increased rapidly and steadily over the years. These documents of China are good examples for Vietnam. For example, Vietnam's IP Strategy to 2030 issued in 2019 has absorbed many sources of ideas and lessons learned from 10 years of implementing China's National IP Strategy.

[1] Fullname and fulltext in English version can be seen as The Comprehensive and Progressive Agreement for Trans-Pacific Partnership at the website: https://www.mfat.govt.nz/assets/CPTPP/Comprehensive-and-Progressive-Agreement-for-Trans-Pacific-Partnership-CPTPP-English.pdf
[2] Fullname in English is European Union-Vietnam Free Trade Agreement. See fulltext of English version at the website: *http://trade.ec.europa.eu/doclib/press/index.cfm?id=1437*
[3] Fullname of RCEP is The Regional Comprehensive Economic Partnership, fulltext of English version can be seen at the website: https://wtocenter.vn/chuyen-de/16428-rcep-text-and-associated-documents

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

The article analyzes the main provisions of Law on IP and several related laws on the commercialization of patent, thereby pointing to the main shortcomings. Then, the authors review the related laws on patent commercialization of China and propose some recommendations to improve Vietnam's regulations.

This papers will focus on the research of volunteer commercial exploitation of patent owner such as self-commercialization of patent; transfer of patent rights including assignment and licensing of patent; mortgage and collateral of patent rights for doing business, setting up companies.

The authors will use both doctrinal research and stastical survey methods to show the current situation of legal rules on patent commercial exploitation and its practice in Vietnam.

2 LITERATURE REVIEW

Patent is one important objects of IPRs. For this reason, most of documents relating to IPRs, domestic or foreign, mention on patent. The commerrcial exploitation of patent was gone with the technology transfer wave from developed countries to development countries since 1970's of the last century. It can be noted with the following publications: *Licensing and exploitation of patents* of Holloway. H (1968)[4]; *Licensing as a means of penetrating foreign markets* of Zenoff David B. (1970)[5]; *Breveté et licencié-Leurs rapports juridiques dans le contrat de licence* of Jean-Jacques Burst, International Research Center of Industrial Property, Strasbourg Faculty of Law and Economic-Politic Sciences (1970); *Emerging restriction on the transfer of technology* of John C. Green (1971)[6]; *Brevets et sous-développement-La protection des inventions dans le Tiers-monde* of Martine Hiance và Yves Plasseraud, International Research Center of Industrial Property Rights, Strasbourg Faculty of Law, Economic-Politic Sciences (1972); *Patent and Know-how Licensing in Japan and the United States* of Teruo Doi and Warren L. Shattuck (chief editors), Washington University Publishing House (1977); *Licensing Guide for developing countries*, WIPO (1977); *Les contrats de licence en Droit Socialiste* of Alexandre VIDA, Librairies Techniques (1978); *Le Brevet Américain – Protéger et Valoriser l'Innovation aux États-Unis* of André Bouju, JUPITER PRÉCIS (1988); *Contrats*

[4] Holloway. H (1968), *Licensing and exploitation of patents*, *J.P.O.T.S.*, Vol. 2, No. 1, pp. 96-100.
[5] Zenoff David B. (1970), *Licensing as a means of penetrating foreign markets*, *IDEA*, vol. 14, No. 2, Summer 1970.
[6] John C. Green (1971), *Emerging restriction on the transfer of technology*, *IDEA*, Summer 1971, page 274.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Internationaux et Pays en Développement of Hervé Cassan, Economica (1989); *Droit Européen des Licences Exclusives de Brevets* of Isabelle Roudard, Novelles Editions Fiduciaires (1989); *Legal Aspects of the Transfer of Technology to Developing Countries* of Michael Blackeney, Oxford: ESC Publishing (1989); *Le contrôle administratif des contrats de licence et de transfert de technologie* of Bernard Dutoit et Peter Mock, Librairie Droz SA, Genève (1993); *Patents and Development* of Dr. Patricia Kameri-Mbote (1994)[7]; *A concise guide to European Patents: Law and Practice* of Gerald Paterson M.A., London Sweet&Maxwell (1995); *Droit des Brevets d'Invention et protection du savoir-faire* of Mireille Buydens (1999); *WIPO Intellectual Property Handbook: Policy, Law and Use* of WIPO (2001); *Intellectual Property Law in Europe,* of Guy Tritton (chief editor), London Sweet & Maxwell (2002); *Legal rules of Technology transfer in Asia* of Christopher Heath and Kung-Chung Liu (chief editors), Kluwer Law International (2002); *Industrial Property Rights Standard Textbook-Patents*, Japan Institute for Invention and Innovation (2003); *Intellectual Property Law in Asia* of Christopher Heath (chief editor), Kluwer Law International (2003); *Patents and the Transfer of Technology to Developing Countries* of Professor John Barton[8] (*George E. Osborne Professor of Law, Emeritus)*, Stanford Law School, in the Conference of OECD on *IPRs, Innovation and Economic Development*, Paris, 29/08/2003; *The Transfer Pricing of Intangibles* of Michelle Markham, Kluwer Law International (2005); *Brevet, innovation et intérêt général-Le Brevet: pourquoi et pourquoi faire?*, Larcier (2007); *How Does Patent Protection Help Developing Countries?* of Ali M. Imam (2006)[9]. These publications answered what is patent, legal character of patent, differences and similarities between patent and other IPRs, content of patent rights, theories of patent, conditions for patentability, importance of protection and exploitation of patent for technology transfer, innovation of country and companies, patent rights in some regional and international conventions, transfer pricing, valuation of patent rights, litigation resolution of patent rights, administrative control of patent transfer contract, etc.

During the last decades, publications relating to patent in general and patent exploitation in particular are related to innovation. Some publications in legal fields could be noted such as *How Do Patent Laws Influence Innovation: Evidence from Nineteenth*

[7] Patricia Kameri-Mbote (1994), *Patents and Development*, Law and Development in the Third World, Faculty of Law, Nairobi University, pp. 412-425.
[8] John Barton (George E. Osborne Professor of Law, Emeritus) (2003), *Patents and the Transfer of Technology to Developing Countries*, Stanford Law School, presentation at the *Conference of OECD on IPRs, Innovation and Economic Development*, Paris, 29/08/2003.
[9] Ali M. Imam (2006), *How Does Patent Protection Help Developing Countries?*, International Review of Intellectual Property and Competition Law (IIC), Volume 37, No. 3/2006,pp. 245-259.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Century World Fairs of Moser, P (2003)[10]; *Patent Scope and Innovation in the Software Industry* of Cohen, J. and Lemley, M. (2001)[11], etc. These publications show that innovation could be understood as the successful exploitation of patent in the market. Invention could not only be filed and protected as patent for exclusive rights of owner but also needs to be exploited successfully in the market for production and business to gain profit. Therefore, the successful exploitation of patent is very crucial.

There is also some articles relating to patent system and licensing patent in Vietnam such as *Industrial Property Protection in Vietnam* of Christopher Heath (1999)[12] ; *Echoes of Bay-Dole? A survey of IP and Technology Transfer Policies in Emerging and Developing Economies* of Gregory D. Graff, extracted from *Intellectual Property Management in Health and Agricultural Innovation: a hand book for best practices*, MIHR and PIPRA (2007). However, these publications do not show the forms of patent exploitation in Vietnam.

In brief, there is not any systematic and comprehensive publications relating to the legal rules on the patent exploitation and forms of patent exploitation in Vietnam and not publications on comparative view of patent commercialization between China and Vietnam.

3 RESULTS AND DISCUSSIONS

Vietnam's laws on patent commercialization

Definition of patent commercialization

Patent commercialization is not new terms in Vietnam or the world. According to the Vietnamese dictionary, an invention is explained as "thinking and creating something that has never existed before"[13]. Legally, according to the provisions of Clause 12, Article 4 of the Law on Intellectual Property[14], "invention" is explained as *"technical solution in the form of a product or process to solve a defined problem by the application of natural laws".* The invention can be expressed in the following forms: a structure, substance,

[10] Moser, P (2003), *How Do Patent Laws Influence Innovation: Evidence from Nineteenth Century World Fairs*, NBER Working Paper No. w9909.
[11] Cohen, J. and Lemley, M. (2001), *Patent Scope and Innovation in the Software Industry*, California Law Review, No. 89, pp. 1-58.
[12] Christopher Heath (1999), *Industrial Property Protection in Vietnam*, *International Review of Intellectual Property and Competition Law (IIC)*, Volume 30, No. 4/1999, pp. 419-441.
[13] Institute of Linguistics (Editor Hoang Phe), Vietnamese Dictionary, Da Nang Publishing House – Center for Dictionaries, Hanoi – Da Nang 2003, page 846
[14] Law No. 50/2005/QH11 promulgated by the National Assembly on November 29, 2005. This Law on IP was amended and modified in 2009, 2019 and 2022.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

method, biological material or use of a known mechanism (or a known substance, method, or biological material) in a new function[15]. Therefore, an invention can be seen as a technical solution, a new and creative technical measure created by humans to solve a defined problem.

There are many opinions that inventions are sublime and difficult to access, but the reality has shown that many inventions come from simple and daily life experiences. However, from a legal point of view, not all solutions or technical measures with the above properties are identified as inventions and protected by the state. Therefore, besides determining a definition or an interpretation of an invention, in order to be able to enforce issues related to an invention, it is necessary to understand the conditions for the protected invention. According to the provisions of Article 58 of the Law on IP: *"1. An invention is protected in the form of a patent if it meets the following conditions: a) Being novel; b) Having a creative level; c) Capable of industrial application. 2. An invention is protected in the form of a utility solution if it is not common knowledge and meets the following conditions: a) Being novel; b) Capable of industrial application".*

Vietnam's law not only protects an "invention" when it has been granted a protection certificate by a competent state agency or during the procedures of having a protection certificate. It also has other regulations to protect the legitimate rights and interests of individuals or organizations during the applications for the protection of an patent[16]. However, due to the limitation of the article's volume, the author only mentions the inventions that have been granted protection certificates (called as patent) by state agencies and the commercialization mechanism for this subject.

As defined above, a technical solution or technical invention determined to be an "invention" under the law must be granted a protection certificate by a competent state agency. When an invention is issued a protection certificate, the IPRs to the invention arise accordingly. Specifically, according to the provisions of Clause 2, Article 2 of the Law on IP *"Industrial property rights are the rights of organizations and individuals to inventions, industrial designs, integrated circuit layout designs, trademarks, trade names, geographical indications, trade secrets created or owned by them, and the right to against*

[15] According to the Guide to Patent/Utility Solution Registration, National Office of Intellectual Property, 2004, page 1.

[16] According to the provisions of Clause 1, Article 121 of the Law on Intellectual Property with provisional rights to inventions, industrial designs, and layout designs, *"1. Where an applicant for registration of an invention or industrial design knows that the invention or industrial design is being used by another person for commercial purposes and that person does not have the right to use it first, the applicant has the right to notify the user in writing that he/she has filed a registration application, specifying the filing date and the date of publication of the application in the Industrial Property Official Gazette for that person to terminate the use or continue using."*

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

unfair competitive practices." Based on this provision, IPRs are a type of property right, fully qualified to participate in civil transactions. Both inventions and industrial property rights are considered as objects of business, investment and commercial exploitation.

Forms of patent commercialization

Commerce is a broad and increasingly developed concept with a comprehensive denotation. According to the provisions of Clause 1, Article 3 of the Commercial Law No. 36/2005/QH11 promulgated by the National Assembly on June 14, 2005 ("Commercial Law 2005"), commercial activities are activities for profit-making purposes, including the purchase and sale of goods, service delivery, investment, trade promotion and other profitable activities. Commercial activities bring to the owners of goods specific economic values and benefits. Intellectual property which includes inventions is also considered a commodity and it can bring the owner certain profits through commercial activities.

The "commercialization" of an invention can be understood both in a narrow sense and in a broad sense. In the narrow sense, "Commercialization of inventions" is the transformation of inventions into goods for circulation on the market, thereby bringing profits to the owner. In a broad sense, "Commercialization of inventions" is the activity, the process of exploiting intellectual property rights objects in return for economic benefits, serving specific purposes set by the patent owner[17]. Whether in a broad or narrow sense, commercialization of an invention has two basic unchanging characteristics: (1) the actual exploitation of the value of the invention; and (2) for profit purposes.

According to the above concept, the commercialization of an invention is an act. And of course, these acts cannot happen independently or spontaneously but must be associated with a specific subject, which is the owner of the invention. Under Clause 1, Article 121 of the Law on IP, "*Owners of inventions, industrial designs and layout designs are organizations or individuals that have been granted protection certificate of industrial property objects by a competent authority*". Based on this provision, the owner of patent is an individual, organization, or another subject that has been granted a patent by a competent state agency or recognized as a lawful user of the patent, or legally transferred patent related to commercial business activities. Accordingly, the owner of a patent is the

[17] According to the Center for Research, Training and Consulting, the Commercialization of intellectual property - a driving force for sustainable development for small and medium-sized enterprises in Vietnam, https://htpldn.moj.gov.vn/Pages /chi-tiet-tin.aspx?ItemID=116&l=BanTin.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

one who has the right to commercialize the patent.

Currently, according to Vietnamese law, there are the following forms of commercialization of inventions:

- The owner commercializes the patent by himself;

- Owners transfer industrial property rights to patent: transfer of ownership of patent (assignment) and licensing of patent;

- Owners mortgage or collateral, contribute capital, cooperate in business with industrial property rights to the patent.

The importance of patent commercialization

The commercialization of patent is a matter of great interest and has taken place actively in recent times. Commercialization of patent not only benefits individuals and organizations directly related to that patent but also contributes to promoting the development of the whole society, specifically as follows:

(i) For patent owners

For patent owners, commercialization has the following effects:

Firstly, the commercialization helps patent owners to increase their income, reinvest profits for research and development activities, and gain prestige in production and business activities.

Second, the transfer of patent rights to other entities gives the patent owner time to focus and create other inventions.

Third, the transfer of patent rights to others also aims to receive consumer feedback on the features and uses of the new invention, thereby continuing to overcome the disadvantages of the invention, promoting change with technology and creativity.

(ii) For the transferee

For the licensee of the commercialization of patent, the transferee can easily access and use new technologies to serve his production and business activities, especially are enterprises. In this 4.0 technology era, technology is considered one of the vital issues of an enterprise. Without commercialization, the opportunity for innovation and development of enterprises will be limited and faced many obstacles.

(iii) For the society

The importance of the commercialization of patent cannot be denied to society, specifically as follows:

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

***First*,** the exploitation and application of patent play a significant role in daily life and the development of civilization of human society.

Second, the commercialization of patent increases competitiveness and promotes competitive innovation. The exclusivity of the patent only gives the patent owner a market advantage for a certain time because nothing prevents competitors from developing the invention in new directions. The patent itself will encourage others to research, create and improve that invention in a better way. Accordingly, a later invention will be enhanced than a given invention, improving the quality of goods and services or creating new products at an appropriate price. Therefore, the commercialization of patent not only creates innovation with fair competition but also increases the number of patent.

Third, the commercialization of patent has become trending in the development policies of countries and promotes the development of the knowledge economy. The investment in creativity and innovation, technology development in general, and invention development, in particular, is becoming a state trend. Many studies in the world show that inventions used in industries in the European region in the period 2008 - 2010 generated EUR 1.7 trillion, accounting for 14% of the GDP of the European Union. For American industries, in 2010, the invention itself brought in $763 billion, accounting for 5.3% of GDP. The considerable contributions of inventions to economic growth not only reflect the role of technological resources in the scale of growth but also in the process of economic restructuring and the quality of growth. The increased level of patent use in industries can potentially transform the economic structure. Patents are one of the abundant resources for the economic and social development of each country in the fierce competition on a global scale[18].

Current status of Vietnamese law on the patent commercialization

The direct patent commercialization by the owner

Vietnam's Law on IP does not have specific and detailed provisions allowing the owner to commercialize an patent directly. The fact that the owner has the right to commercialize the patent himself arises from the owner's right to use the patent.

In essence, a patent is an asset in general and a type of IP in particular. According

[18] Nguyen Huu Can, *The role of inventions in economic development*, Nhan Dan Online at the website https://nhandan.vn/khoa-hoc/vai-tro-cua-sang-che-trong-phat-trien-kinh-te-305839/#:~:text=S%C3%A1ng%20ch%E1%BA%BF%20(SC)%20l%C3%A0%20t%C3%A0i,gi%C3%A1%20tr%E1%BB%8B%20cho%20x%C3%A3%20h%E1%BB%99i.&text=SC%20kh%C3%B4ng%20ch%E1%BB%89%20l%C3%A0m%20gia,v%C3%A0%20k%C3%ADch%20th%C3%ADch%20ti%C3%AAu%20d%C3%B9ng, accessed in 17/02/2022

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

to Article 158 of the Civil Code No. 91/2015/QH13 promulgated by the National Assembly on November 24, 2015 ("Civil Code 2015"), a patent owner has full ownership rights: the right to possession, use, and disposition of patent[19]. In which, the right to use is the right to exploit the utility and enjoy the benefits and profits from the property[20]. According to Article 190 of the Civil Code 2015, the owner is entitled to use the property by his/her will but must not cause damage or affect the national interests, ethnic groups, public interests, rights, and legitimate interests of others.

Based on the above provisions, it is conceivable that when the owner has the right to use the invention, the owner can use the patent at his will without depending on other subjects. In other words, the owner has the right to exploit, use and apply the patent to the production and business process by himself. The right to use patents is not only recognized in a general way in the original code (the Civil Code 2015) but has also recognized in specialized laws that directly govern this issue. Specifically, in Clause 1, Article 123 of the Law on IP: *"1. Owners of industrial property objects have the following property rights:*

a) Using or permitting others to use industrial property objects as prescribed in Articles 124 and Chapter X of this Law;

b) Prohibit other people from using industrial property objects as prescribed in Article 125 of this Law;

c) Dispose of industrial property objects as prescribed in Chapter X of this Law."

Article 124 of the IP Law 2005 also clarifies that the use of a patent is the performance of the following acts: *"a) Producing the protected product; b) Applying the protected process; c) Exploiting the utility of the protected product or the product manufactured according to the protected process; d) Circulating, advertising, offering, storing for circulation the products specified at Point c of this Clause; dd) Importing products specified at Point c of this clause".*

Through the above analysis, the direct exploitation and commercialization of patent is an evident and fully legal right of the patent owner. It demonstrates when the patent by the owner of the invention directly puts the patent into the business, commercial, and profit-producing process, independent of the behaviour or without the participation of other subjects. The direct exploitation and commercialization of patent

[19] According to Article 158 of the 2015 Civil Code, "ownership rights include the owner's right to possess, use and dispose of the property following the law."
[20] According to Article 189 of the Civil Code 2015

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

express through activities such as manufacturing products, applying processes, exploiting uses, circulating, advertising, importing,... with protected objects themselves. It is conceivable that Article 124 of the Law on IP stipulates quite fully the acts of using patent, but there are still some limitations as follows:

- Lack of regulations on the export of protected products. It is a relatively important omission in the provisions of the law and needs adjusting to keep up with the development of society because the current trend is the exchange, import, and export of technology products, in general, and patent, in particular, is also an economic spearhead that countries choose to develop. Therefore, it is necessary to supplement this provision to ensure that the export activities of patent from Vietnam to other countries are regulated by law.

- The use of the term "protected product" is ambiguous. “Protected Product” shall be understood as a protected patent or a product containing a protected patent. While these are two completely separate objects from each other, hence the scope is also different. There are many cases where the patent is just a small device or a small component in an entire product. If the interpretation of "protected product" is not clear, it is effortless to get into a dispute as to whether the owner has rights only to his own patent or even to the product containing the patent.

Besides the owner's right to use the patent, the direct exploitation and commercialization of the patent are also formed from the perspective of the right to prevent others from using the invention or the exclusive right of the owner under Point b, Clause 1, Article 123 of the Law on IP. A distinctive feature to distinguish the direct form of exploitation and commercialization of patent from other forms of commercialization is that the owner keeps the patent for himself, in other words, the owner is the only person who has the right to exploit the patent. The act of keeping this patent to oneself can only be done by the right to prevent others from using the patent. The right to prohibit others from using an patent is auxiliary, going hand in hand with the above analyzed right to use, but equally important to ensure the rights of the owner in the form of direct exploitation, commercialization of patent. However, it is notable that the right to prohibit others from using an patent is not absolute. The Law on IP provided cases where the owner did not have the right to prevent others from using the patent in Article 125[21]. When

[21] According to Clause 2 Article 125, Law on IP*: “2. Owners of industrial property objects as well as organizations and individuals granted the right to use or the right to manage geographical indications shall not have the right to prevent others from performing the following acts:*
(a) Using patents, industrial designs, or layout designs in service of their personal needs or for non-commercial purposes, or for purposes of evaluation, analysis, research, teaching, testing, trial production,

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

the right to prevent others from using the patent is limited, it means that the owner can "keep" the patent for himself and refuse to share the patent, in any case. Limiting the scope of the direct form of exploitation and commercialization of property does not mean that the State does not guarantee the interests of the owner, however, this activity must comply with a general principle that may not cause damage or affect the national interests, the people, the public interests, the lawful rights and interests of others.

Through the above analysis, up to the present time, there have not been any provisions in the domestic law that explicitly record the direct commercialization of patent, which is considered an evident right from the owner. In essence, this right belongs not only to the owners of patented inventions but also to the rights of creators. However, the law can only protect the owner or creators in the process of self-commercializing a patent when the invention is registered for protection at a competent state agency. Many researchers or creators are still not aware of the importance of this protection registration activity. Accordingly, the number of applications and protection certificates for patent is seldom compared to other types of industrial property objects such as trademarks or industrial designs, specifically:

Statistical table of the number of patent applications and patents granted in Vietnam in the period 2013-2021[22]

or information collection for carrying out procedures of application for licenses for production, importation or circulation of products;
(b) Circulating, importing, exploiting utilities of products which were lawfully put on the market including overseas markets, except for products put on the overseas markets, not by the trademark owners or their licensees;
(c) Using patents, industrial designs, or layout designs only to maintain the operation of foreign means of transport in transit or temporarily stay in the territory of Vietnam;
(d) Using patents or industrial designs by persons with the prior use right according to the provisions of article 134 of this Law;
(dd) Using patents by persons authorized by competent authorities according to the provisions of articles 145 and 146 of this Law;
(e) Using layout designs without knowing or having the obligation to know that such layout designs are under protection;
(g) Using trademarks identical with or similar to protected geographical indications where such marks have lawfully acquired protection before the date of applying for registration of such geographical indication;
(h) Using in an honest manner people's names, descriptive marks of type, quantity, quality, utility, value, geographical origin, and other properties of goods or services."

[22] The data in the statistics table is compiled from the statistical tables of the number of applications and diplomas granted by the provinces and municipalities over the years at the website of the National Office of Intellectual Property, https://ipvietnam.gov.vn/web/guest/danh-sach-sang-che-kieu-dang-cong-nghiep-nhan-hieu-cua-63-tinh-thanh

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Period of time	Patent applications			Patents		
	Patent	Industrial design	Trademark	Patent	Industrial design	Trademark
January/2022	69	154	3127	14	93	1881
2021	1034	1815	42973	151	1222	25490
2020	905	1856	46579	122	994	25717
2019	720	1825	43563	169	1167	22265
2018	637	1687	37431	202	1254	14085
2017	591	1556	35474	103	1248	14427
2016	557	1873	34966	70	825	12678
2015	588	1623	30410	56	769	12917
2014	486	1600	26546	33	834	13590
2013	441	1369	24616	53	754	12560

Through the above statistics, it is completely reasonable to see that patents have not developed strongly in Vietnam, also that the exploitation of this type of property is still limited. In addition, in fact, for patented inventions with potential for commercialization, patent owners still face many difficulties in commercializing their patents, specifically:

First, many patents are incomplete, requiring a long investment process to be commercialized. For example, Mr. Vu Hong Khanh's patent of producing hydrogen, and Mr. Tran Dinh Toai's patent of producing ethanol from rice straw need a long process of testing, evaluation, and verification before they can be applied to production and business activities. Meanwhile, not all owners or creators have the resources to ensure this process.

In addition, there are also cases where the subject has enough potential to develop but lacks an appropriate mechanism to do so, typically in higher education training institutions. Educational institutions have many conditions to develop research and creative activities to create intellectual products in general and inventions in particular. Specifically, Vietnam currently has an estimated 237 universities, 16,500 doctorates, 574 professors, and 4,113 associate professors; annually, training about 1,500 doctorates, 36,000 masters, nearly 1.5 million university students, and several thousand scientific research projects at all levels deployed from universities. Many topics, technological processes, and scientific products have the potential for practical application, but only a small number of them are transferred or commercialized to create high-added value, serving the national goal of the people. This fact wastes social

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

resources[23]. Vietnam's policies and laws also allow and encourage the establishment of science and technology enterprises in universities under the spin-off business model. Specifically, one of the most widely known and effective spin-off models among enterprises in the university is the BK Holdings enterprise system of Hanoi University of Science and Technology, in addition to other companies in the university such as Consultancy Company Limited of University of Civil Engineering, DK Pharma Co., Ltd, Consultancy, Technology Development and Construction Company of the University of Mining and Geology – CODECO, Consulting and Technology Transfer Company of University of Water Resources University have gained remarkable achievements. However, in the process of implementing this model, there are still many difficulties stemming from obstacles in financial policy from the management mechanism and the distribution of profits obtained from the commercialization of research results, the management mechanism of public employees participating in the establishment of enterprises in research and training institutions... Therefore, this model has only stopped at pilot activities and was implemented in a narrow scope, not yet reached highly effective results in the commercialization of inventions.

Second, many patent owners are too cautious about widely disseminating their inventions or collaborating with individuals and other entities to develop their inventions for fear of not being able to keep their rights to the invention. A typical example is Mr. Nguyen Huu Trong with his invention of a gas-saving device. He does not want to reveal the technology or allow detailed tours of the production lines of machines and production technologies that have been tested. This makes investors lack information to evaluate the potential of the invention. Or like Mr. Bui Trong Tuan with the patent of a stove, he is not confident when cooperating with businesses for fear of not being able to control his intellectual property as well as fear of "big fish eating small fish".

Third, the owner wants to make an immediate profit but does not want to continue developing the patent to complete and add value. Typically, Mr. Vu Hong Khanh immediately valued his capital contribution to technology at VND 6 billion but did not want to continue with the business to perfect the technology.

Reality shows that self-exploitation commercializing patents are relatively common in our country. It comes from the mentality of wanting to keep personal creative achievements private and the fact that he/she is not familiar with the activities of

[23] Hoang Giang, *Proposing a pilot mechanism to develop the technology spin-off business model*, Government e-Newspaper, https://baochinhphu.vn/de-xuat-co-che-thi-diem-phat-trien-mo-hinh-doanh-nghiep-khoi-nguon-cong-nghe-102220108101706381.htm.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

registering for the protection of IP in general and patents in particular from the start-up stage. From a retail perspective, the direct exploitation and commercialization of patent still contain positive and beneficial factors for creative activities. However, the direct commercialization of patent also has many limitations. To fully exploit the value of the patent, it is required to have a combination of self-commercialization of the patent with other methods and a long-term connection between owners and other partners.

Commercialization of patents through the transfer of IPRs to patents

The owner of an patent has a fully legal basis to exploit the patent by himself to obtain material benefits through the exercise of his right to use the patent. However, in reality, the owner rarely has enough economic, financial, physical, and human resources to commercialize the patent by himself. To overcome this situation, the patent owner often exercises the right to dispose (transfer of industrial property rights) or the right to allow others to use (conveyance) his patent through a transfer contract of ownership or patent licensing contract, specifically:

Transfer of ownership of a patent

According to Clause 1, Article 138 of the Law on IP, *"transfer of industrial property rights means the transfer of industrial property rights by the owner of his/her ownership rights to another organization or individual".* In essence, a patent is defined as an object of industrial property, so the transfer of ownership rights to an patent is the transfer of the entire industrial property right to the patent by the owner of the patent to other organizations and individuals. The assignment of this patent is considered to be the "outright sale" of the patent. The form of selling off an patent to another person is a way of exercising the right to dispose of the owner's patent.

Vietnamese law has relatively evident provisions on the transfer of patent ownership, specifically as follows:

Conditions restricting the transfer of ownership rights to patents

According to Clause 1, Article 139 of the Law on IP, industrial property rights owners may only transfer their rights within the scope of protection. This protection can be temporal or territorial. Therefore, the patent owner can only transfer his ownership rights within the territory and for the protected time. If the patent is not protected in a certain country, the use of the patent in that country does not require permission from the

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

owner. Or if the patent expires, anyone can use the patent without asking the owner's permission.

Contract for transfer of patent ownership

According to Clause 2, Article 138 of the Law on IP, *"the transfer of industrial property rights must be done in the form of a written contract (hereinafter referred to as the contract for assignment of industrial property rights)".*

Based on the above provisions, a contract for assignment of industrial property rights to an patent must be made in writing and must comply with the general provisions on the validity of an ordinary civil transaction as prescribed in the Civil Code in 2015. Accordingly, Clause 1, Article 117 of the 2015 Civil Code stipulates that *"a civil transaction will take effect when the following conditions are fully satisfied: a) The subject has suitable civil legal capacity, and civil act capacity in accordance with established civil transactions; b) Entities completely voluntarily participate in civil transactions; c) The purpose and content of the civil transaction do not violate the prohibition of the law and do not contravene social ethics."*

Thus, when entering into a contract for the assignment of industrial property rights to a patent, the parties not only have to pay attention to the specific provisions in the specialized legal document of the Intellectual Property Law, but also need to fully ensure the conditions for that contract to come into effect as provided in the Civil Code for invalidated cases and the parties will face many risks and damages.

Contents of contract for transfer of ownership rights to patents

In addition to being made in writing, a contract for the transfer of ownership rights to an patent must contain all the contents as prescribed by law. Specifically, according to Article 140 of the Law on IP*, "A contract for the transfer of industrial property rights must contain the following principal contents: 1. Full name and address of the assignor and assignee; 2. Grounds for transfer; 3. Transfer price; 4. Rights and obligations of the assignor and the assignee".*

It can be seen that the contents that the Intellectual Property Law is required to include in the patent assignment contract are only basic, general, unspecified contents, especially the legal provisions on transactions, responsibilities and obligations to perform the contract. The lack of detailed and specific provisions related to the content of the

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

contract for the transfer of ownership rights to patent has led to many difficulties and limitations in the commercialization of patent in Vietnam.

Registration of a contract to transfer ownership of patent

In addition to the conditions on form and content, one of the conditions for the contract to transfer ownership of patent to be valid is the registration at a competent state agency. Specifically, according to the provisions of Clause 9 Article 2 of the Law on Insurance Business and IP the Law on: *"1. With regard to industrial property rights established on the basis of registration as prescribed at Point a, Clause 3, Article 6 of this Law, an industrial property right assignment contract shall only take effect when it has been registered at a state management agency in charge of industrial property rights".*

As such, the right to transfer contract of patent ownership is only valid when it is registered at the State Administration of Industrial Property Rights, which is the National Office of Intellectual Property (NOIP)[24]. This regulation aims to protect Vietnamese enterprises and organizations in contractual relations with enterprises and organizations of industrialized countries, to limit the situation that the patent transferor in the developed countries imposes unfavorable conditions on the licensee of the patent in the developing country. Given the actual situation in Vietnam, when individuals, organizations and even the Vietnamese government are often the licensees of patents, the mandatory registration of a contract to transfer ownership of an patent is appropriate and necessary.

However, these regulations also have certain shortcomings. Specifically, the administrative order and procedures to register a contract to transfer ownership of an patent is relatively complex and cumbersome. In case the contract for the transfer of ownership rights to an invention is a part of another contract such as a business cooperation contract, equipment purchases and sale contract, or technology transfer contract, the contents related to the invention ownership transfer must be made in a separate part and registered at the NOIP in accordance with the documents, procedures and order as prescribed by law. In addition, all amendments, supplements, terminations and renewals of the main contract must be made in writing and registered as the main contract. The transfer of rights of each party in a registered contract to a third party such as inheritance or merger must also be registered. It can be seen that any transfer of ownership rights to patent must constitute an independent contract, if it is part of the main

[24]According to the provisions of Article 48.1 of Circular No. 01/2007/TT-BKHCN and Point a, Clause 40, Article 1 of Circular No. 16/2006/TT-BKHCN, NOIP is the place to receive and process application for registration of contract to transfer the industrial property rights.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

contract, it must also be separated from the main contract and must be registered with the NOIP. The above procedures are the main obstacles that make the patent transferor (usually a foreign partner) hesitate to transfer for fear of excessive time and cost spent.

Therefore, the improvement of administrative procedures is essential and important, thereby creating an incentive for investment, development and innovation of advanced technology in accordance with the guidelines of the Party and State. *Licensing of patent use rights*

Common forms of patent licensing

Transfer of the right to use industrial property objects, also commonly known as industrial property licensing, is the most popular method of commercializing intellectual property today. According to the provisions of Clause 1, Article 141 of the Law on IP, "*Transfer of the right to use an industrial property object is the act by which the owner of an industrial property object permits another organization or individual to use an industrial property object within the scope of its right of use".* Accordingly, the transfer of the right to use patent is the owner's permission or authorization to another person to use his patent within a certain scope.

According to the provisions of Clause 2, Article 141 of the Law on IP, the transfer of the right to use an industrial property object must be done in the form of a written contract and is generally referred to as an "patent use contract". Based on Article 143 of the Law on IP, "patent use contracts" or patent licensing contracts in particular are divided into three types, including:

"1. An exclusive contract is a contract under which, within the scope and term of the transfer, the licensee has the exclusive right to use the industrial property object. The licensor is not allowed to enter into a contract to use the industrial property object with any third party and may only use the industrial property object with the permission of the licensee;

2. Non-exclusive contract is a contract under which, within the scope and term of licensing, the licensor still has the right to use the industrial property object, the right to enter into a contract to use the industrial property object which is not exclusive to others;

3. A contract for use of a secondary industrial property object is a contract under which the licensor is assigned to use that industrial property object under another contract."

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

In fact, the licensing of industrial property objects in general and patents in particular often exists in two common forms which are exclusive and non-exclusive licenses. According to the provisions of the above IP Law, as the name suggests, an exclusive license confers the right to use or commercialize the patent to only the licensee, not a single entity, even including the owner of the industrial property object (without the licensor's permission) is allowed to use and exploit the patent during the term of the exclusive license contract. On the other hand, the licensee may not allow a third party to use the patent unless the licensee has a sub-license agreement with the third party under the licensor's permission[25]. In the case of a non-exclusive license agreement, the licensee may also not transfer the right of use to a third party unless there is a sub-license agreement under the licensor's permission. However, unlike an exclusive license contract, the licensor has a sufficient legal basis to retain the right to use and exploit his patent to continue to proceed non-exclusive license contracts with third parties without any restrictions.

A patent licensing contract is the simplest and most "original" form of licensing because the object of a patent licensing contract is only patent without any other objects. However, in fact, there are many other forms of licensing of inventions that, in addition to patent, the subject of transactions also includes technology transfer and commercial franchising.

Provisions on patent licensing contracts

In essence, a contract is an agreement between two parties and the law respects that agreement. However, in order to ensure that these agreements do not violate the law, affect other entities, and ensure social order, these agreements must still comply with the law. A patent use right contract is one contract of this type. Specifically, according to the provisions of Article 144 of the Law on IP, the content of a patent use contract must simultaneously satisfy the following 02 (two) conditions:

-First, a patent use contract must contain the following main contents, including: Full name and address of the licensor and the licensee; Grounds for transferring the right to use; Type of contract; The scope of the transfer, including restrictions on use rights, limits on territories; Contract term; Price for licensing the right to use; and Rights and obligations of the licensor and the licensee.

[25]According to Clause 3, Article 142 of the IP Law 2005, “3. The licensee may not enter into a secondary contract with a third party, unless permitted by the licensor.”

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

- *Second*, the patent use contract must not contain/recognize provisions that unreasonably restrict the licensor's rights, especially those that are not derived from the licensor's rights as follows:

+ Prohibiting the licensee from improving industrial property objects, except for trademarks; oblige the licensee to transfer to the licensor free of charge the industrial property object improvements created by the licensee or the right to register industrial property or industrial property rights for such improvements;

+ Directly or indirectly restricting the licensee from exporting goods or services produced or supplied under the contract for the use of the industrial property object to territories other than where the licensor holds the respective industrial property rights or has the exclusive right to import such goods;

+ Forcing the licensee to purchase all or a certain percentage of raw materials, components or equipment from the licensor or a third party designated by the licensor without the purpose of ensuring the quality of the goods or services produced or provided by the licensee;

+ Prohibiting the licensee from claiming the validity of the industrial property right or the licensor's right of assignment.

In case the parties include the above provisions in the patent use contract, these terms are automatically invalid.

Through the above contents, it can be seen that the law strictly limits the contents that the parties agree upon and are recorded in the patent use contract. The above provisions are intended to protect the rights and legitimate interests of the licensee - the weaker party in the patent licensing transaction, thereby ensuring a balance of interests for the parties in the contract. The development of this regulation is also based on the fact that at present, the licensee is mainly organizations and individuals in Vietnam, usually the licensee.

In addition to the conditions regarding the content, the validity of the patent use contract is also an issue that the parties need to consider and pay attention to when entering into the contract. According to Clause 9 Article 2 of the Law amending and supplementing a number of articles of the Law on Insurance Business, Law on IP, "*2. For industrial property rights established on the basis of registration as prescribed at Point a, Clause 3, Article 6 of this Law, contracts for the use of industrial property objects take effect as agreed upon between the parties. 3. Contracts for the use of industrial property objects specified in Clause 2 of this Article, except for trademark use contracts, must be*

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

registered at the state management agency in charge of industrial property rights to be legally valid for third-party. 4. Contracts for the use of industrial property objects are automatically invalidated if the industrial property rights terminate.

A patent is an industrial property object established on the basis of a decision on a grant of a protection title by a competent state agency. A patent use contract is valid according to the agreement between the parties, only legally valid for a third party when it has been registered at the state management agency in charge of industrial property rights, which is the NOIP. And in case the licensor's patent ownership ends, the patent use contract also terminates.

Officially, on the statistics published on the NOIP's website, there are no specific data on the number of patent that are transferred ownership or use rights in Vietnam. It is only possible to obtain statistics on ownership transfer contracts and use right transfer contracts registered at the NOIP, specifically as follows:

Table 2: Number of ownership transfer contracts and use rights transfer contracts for patent/utility solution registered at NOIP for the period 2007-2020[26]

Time	Contracts of ownership transfer	Contract of use right transfer
2007	22	0
2008	28	3
2009	20	2
2010	25	2
2011	18	4
2012	28	1
2013	42	4
2014	67	5
2015	45	3
2016	53	6
2017	71	3
2018	47	5
2019	103	3
2020	48	8

In addition, according to the results of the innovation survey in enterprises under the FIRST-NASATI project recently conducted by the National Agency for Science and Technology Information, the Ministry of Science and Technology, more than 85% of Vietnamese enterprises carry out research and development activities of new technologies or upgrade existing technologies themselves. While technology transfer

[26]The data in Table 2 is compiled from the Annual Report on Intellectual Property activities in 2020, pulished in 2022 https://ipvietnam.gov.vn/en_VN/web/guest/bao-cao-hang-nam/-/asset_publisher/vTLYJq8Ak7Gm/content/bao-cao-thuong-nien-hoat-ong-so-huu-tri-tue-nam-2020?inheritRedirect=false&redirect=https%3A%2F%2Fipvietnam.gov.vn%2Fvi_VN%2Fweb%2Fguest%2Fbao-cao-hang-nam%3Fp_p_id%3D101_INSTANCE_vTLYJq8Ak7Gm%26p%20%_lifecycle%_3Dview%26p_p_col_id%3Dcolumn-1%26p_p_col_count%3D1

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

activities from foreign countries to Vietnam or from science and technology organizations to enterprises are at low level, accounting for only about 1%[27].

Through the above statistics, it can be seen that the total number of ownership transfer contracts and patent/utility solution licensing contracts during recent years are not many, not commensurate with the potential of the patent as well as the mode of commercialization. In fact, businesses, individuals and organizations have not been proactive and active in the transfer of industrial property rights to inventions, thereby creating many negative consequences in innovation and economic development activities.

Commercialization through mortgage/collateral, business capital contribution by industrial property rights to patent

Mortgage/Collateral of IPRs to patent

Mortgage/Collateral is a security measure recognized in the Civil Code in 2015, specifically in Article 317: *"A mortgage of property is the use of property by one party (hereinafter referred to as the mortgagor) to ensure it undertakes to perform the obligations and not deliver the property to the other party (hereinafter referred to as the mortgagee)".* According to the provisions of Article 17 of Decree 21/2021/ND-CP of the Government dated 19 March, 2021 providing for the implementation of the Civil Code on ensuring the performance of obligations ("Decree No. 21/2021/ND-CP"), the property rights arising from IPRs can completely be identified as security assets to participate in mortgage transactions in particular and security transactions in general.[28]. Thus, in terms of legal regulations, organizations and individuals can use IPRs to patent to mortgage/collateral at banks to raise capital. However, in practice, this approach to loans is not popular and is also very difficult to implement for the following reasons:

First, it is difficult to assess the value of industrial property rights to patent. When making credit with any loan, banks must know the value of the property to be able to set a loan limit basing on that. IP in general and industrial property rights to patent in

[27]According to Technology Transfer: In order for businesses not to "lose the rhythm", Portal of the Department of Market and Enterprise Development, Ministry of Science and Technology,https://2075.com.vn/chuyen-Giao-cong-nghe-de-doanh-nghiep-khong-lac-nhip/

[28]According to the provisions of Article 17 of Decree 21/2021/ND-CP, "*Owners of property rights arising from intellectual property rights, information technology, scientific and technological activities may use property rights to objects of copyright, related rights, industrial property rights, rights to plant varieties; ownership, right to use results of scientific research, technology development, technology transfer; other rights with monetary value arising from intellectual property rights, information technology, scientific and technological activities to secure the performance of obligations.*"

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

particular are an intangible asset, moreover, since this is not a traditional type of property, not every individual or organization has sufficient ability and expertise to conduct an appraisal of this asset type.

Currently, there are three approaches (according to cost, income and market) to value an intangible asset according to the provisions of valuation standard No. 13, issued together with Circular No. 06/2014/TT -BTC of the Ministry of Finance on January 7, 2014 issued the valuation standard No. 13. However, IP in general and IPRs to patent in particular do not stand alone, since there is no equivalent property in the market, it is difficult to determine the factors mentioned above for this asset. In addition, the value of this type of property may be reduced or lost due to changes in the market, technology, term of protection as well as factors related to the tastes and beliefs of consumers. In addition, competitors performing acts of unfair competition or infringing on IPRs such as producing counterfeit and imitation goods can also reduce the reputation and value of the property being mortgaged. Therefore, the instability in the price of industrial property rights to inventions due to such factors will affect the valuation of this type of property when mortgaged as well as may pose a risk to the mortgagee when disposing of assets to secure the performance of obligations[29].

Second, the handling of industrial property rights to inventions when obligations are violated faces many difficulties. According to the provisions of Clause 1, Article 303 of the Civil Code 2015, the disposal of the mortgaged property shall be agreed upon by the parties to the mortgage to choose one of the following methods: auction of the property; the secured party sells the property by itself; The secured party assumes the property itself as a substitute for the performance of an obligation or other means. For common types of property, asset seizure has been carried out for a long time and is not too difficult to implement in practice. However, with the characteristics of industrial property rights to inventions, the handling of property will have problems as follows: restricting the subject that can be transferred because industrial property rights for inventions are relatively specific assets and not all subjects are eligible to receive the assignment; The seizure of security assets requires corresponding knowledge of scientific and technical level. In other words, the treatment of industrial property rights to inventions is possible in theory but relatively difficult to enforce in practice.

[29]Hoang Lan Phuong, *Mortgage of intellectual property - Legal aspects and enforcement*, Vietnam Journal of Science and Technology, No. 63, October 2021.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Third, it is not feasible in some cases to guarantee the value of industrial property rights to patents at the time of disposal of the collateral. For example, in case the industrial property right to an invention is collateral, but the patent is outdated (because a product has been put on the market), at the time of disposal, that collateral may be paid less than the value at which the parties have appraised at the time of signing the contract, even no one will accept the transfer of the patent.

Through the above analysis, it can be seen that although mortgaging industrial property rights for inventions is considered a significant measure of exploitation and commercialization of patent but in fact, this operation is still facing many difficulties. This is also one of the reasons why individuals and organizations remain apprehensive about creative activities to create patent. Meanwhile, this activity is an important key to promote the development of the knowledge economy. This is a challenge posed to the state, businesses, and society as a whole.

Contributing capital by intellectual property rights to patents

According to the provisions of Clause 18, Article 4 of the Enterprise Law No. 59/2020/QH14 promulgated by the National Assembly on June 17, 2020 ("Enterprise Law 2020"): *"Capital contribution is the contribution of assets to form authorized capital of a company, including capital contribution to the establishment of the company or additional capital contribution to the charter capital of an already established company".*

According to the provisions of Article 34 of the Enterprise Law 2020 on assets contributed as capital: "*1. Assets contributed as capital are Vietnam Dong, freely convertible foreign currency, gold, land use rights, intellectual property rights, technology, technical know-how and other assets valuable in Vietnamese Dong. 2. Only individuals or organizations that are lawful owners or have lawful use rights to assets specified in Clause 1 of this Article have the right to use such assets to contribute capital in accordance with law."*

According to the provisions of Clause 1, Article 35 of the Law on Enterprises 2020, on transferring ownership of assets contributed as capital: *"1. Members of limited liability companies, partnerships and shareholders of joint-stock companies must transfer ownership of assets contributed as capital to the company in accordance with the following provisions: For properties with registered ownership or land use rights, the capital contributor must carry out procedures to transfer ownership of such property or land use rights to the company in accordance with law. The transfer of ownership or land*

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

use rights for assets contributed as capital is not subject to registration fees. b) For assets without registration of ownership, the capital contribution must be made by handing over the contributed assets certified in writing, unless it is done through an account."

Thus, through the provisions of the Enterprise Law 2020, the contribution of capital with IP in general and patent in particular to establish a company or contribute additional charter capital of an established company is completely legal and permissible. Accordingly, after completing the procedures for contributing capital with industrial property rights to a patent, the enterprise receiving capital contribution will become the owner of the invention and have full rights to commercialize the patent in accordance with the law. In essence, capital contribution is essentially the transfer of industrial property rights to a patent from a member/shareholder of the company to the assignee company, thus carrying some characteristics of ownership transfer. However, unlike the transfer of industrial property rights for ordinary patent, the assignor does not receive a transfer fee from the assignee but will instead have an ownership interest in the capital contribution/shares that have the same amount of money value corresponding to the value of industrial property rights to the patent that the two parties have fixed.

Similar to the mortgage of industrial property rights to a patent, the valuation of this property for capital contribution must also comply with the general regulations on the valuation of intangible assets mentioned in the above content. However, the specialized law, the Enterprise Law 2020, also sets forth the principles that individuals and businesses must comply with in Article 36.

Pursuant to the provisions of Article 36, the valuation of industrial property rights to a patent for capital contribution must satisfy the following conditions:

- IPRs to patent are not Vietnam Dong, freely convertible foreign currencies or gold, so they must be valued in Vietnam Dong. This is completely consistent with the fact that, when contributing capital, the value of industrial property rights to a patent is converted to the value of the corresponding share/capital contribution in the enterprise. Therefore, pricing according to a certain quantity is necessary.

- In case of capital contribution to establish an enterprise, the industrial property rights to the contributed patent shall be valued according to the consensus principle or by a valuation organization; In the case of a valuation organization, the value of assets contributed as capital must be approved by more than 50% of the members and founding shareholders. The valuation is done based on the principle of consensus among or through the appraisal organization. In the case of capital contribution by means of

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

industrial property rights to inventions to increase charter capital, the Members' Council, for limited liability companies and partnerships, the Board of Directors, for joint-stock companies, and the Board of Directors, shall agree on a valuation agreement or the value appraised by a valuation organization. In case of valuation by an approved valuation organization, the value of assets contributed as capital must be determined by the capital contributor and the owner.

Thus, it can be seen that the valuation of industrial property rights to patents in capital contribution activities is carried out on the principle of self-negotiation and self-consensus between owners and enterprises receiving capital contributions.

- However, in order to ensure the "honesty" and "accuracy" in this valuation activity, to avoid the cases of virtual valuation, false valuation affecting the interests of the parties in capital contribution as well as social order in this area, the Enterprise Law in 2020 creates a mechanism to force liability if there is an asset valued at a higher value than its actual value at the time of capital contribution. The valuation of IPRs to patents must also comply with this provision. Accordingly, if the industrial property rights to a patent are valued higher than the actual value of that property at the time of capital contribution, the owners are responsible for the valuation (including founding members/shareholders in case of capital contribution to establish an enterprise; capital contributors, owners, members of the Members' Council at limited liability companies and partnerships, members of the Board of Directors in the case of joint-stock companies in the case of capital contribution to increase the charter capital of the enterprise) jointly contribute added by the difference between the assessed value and the actual value of the assets contributed as capital at the time of closing the valuation; at the same time jointly responsible for damage caused by the intentional pricing of assets contributed as capital higher than the actual value. The regulation of responsibilities under the provisions of the Enterprise Law in 2020 is quite appropriate because when there are clear measures and sanctions, it will force the subjects to seriously carry out valuation activities. However, the Law on Enterprises has not yet provided a method to determine how the invention is valued higher than the actual value and who has the right to demand that individuals who do not comply with this valuation principle suffer. In addition, there is no regulation on the case if the obligors are not responsible for paying the difference and compensation in full, what is the handling mechanism.

It can be seen that the contribution of capital with industrial property rights to patents is not regulated and amended by the specialized law, which is the Intellectual

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Property Law, but only in the Enterprise Law 2020. This together with the fact that the industrial property rights for patent are a highly specific type of property, has created many inadequacies in the implementation process such as: enterprises receiving capital contributions which do not meet all the conditions to receive the transfer of industrial property rights to patent; the delivery and receipt of assets contributed as capital will be very difficult to apply. The regulations on the delivery and receipt of contributed assets certified in written form (usually applied to traditional and tangible assets).

China's laws on patent commercialization in comparative overview

China has ranked second in the world in the production of high-tech products since 2012. In addition to policies to encourage investment in research and technology creation, the Chinese Government from central to local level focuses on promoting the protection of IPRs and measures to use and develop the scientific and technological research results into real products.

Policies to promote invention activities and commercialize patents are considered and formulated quite holistically, from the perspective of supply and demand. In which, outstanding policies related to mobilizing capital for patent commercialization activities in different forms, supporting policies. The synthesis of China's policies applied to the creation and commercialization of patents in particular and to the IP system in general has achieved remarkable results.

Most obviously, the number of domestic and abroad patent applications of China has increased rapidly and steadily over the years. However, it is also a fact that the number of patent applications increased but the percentage of patents maintained in force was not high, for example, only about 5.5% of patents were maintained for more than 10 years, while this figure in some other countries was 26.1%.

China's experience shows that policies need to be comprehensive. China's Patent Law promulgated in 1985 is the basic law that creates a legal basis for patent registration in China. Next, the Law on Transforming Scientific and Technical Achievements in 1996 created a foundation for ministries, branches and localities to develop their own appropriate policies in each period.

These policies are established from macro to micro from both the perspective of supply and demand of the market, especially policies to support financial incentives (capital and tax), policies to encourage government procurement for Chinese products,

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

regulations guiding patent valuation, etc establishing science and technology markets and requirements to enhance the quality of human resources directly and indirectly in the IP system all play an important role, contributing to improving the efficiency of China's patent commercialization.

Since 2008, Chinese government issued Outline of the National Intellectual Property Strategy, and after more than 10 years of implementing, in 2021, Guidelines for Building a Powerful Intellectual Property Nation (2021-2035) were issued. These are two documents that Vietnam has been consulting to choose useful and suitable experiences for itself. For example, Vietnam's IP Strategy to 2030 issued in 2019 has absorbed many sources of ideas and lessons learned from 10 years of implementing China's National IP Strategy.

4 CONCLUSIONS

Patent is one specific intellectual asset, which plays the more and more important role in innovation, development and becomes vital element, driving force behind the scientific-technological, social-economic development of one country.

Effective and reasonable commercial exploitation of this asset increase income and profit for businesses, which contributes to economic growth and raises competitiveness for enterprises and countries.

In recent years, Vietnam’s Government has been focusing on the protection and exploitation of patent, especially for commercial exploitation of patent for the Industrialization-Modernization process, international integration and social-economic development.

With the improvement of policy and legal rules according to the standards of WTO, Law on IP, Law on Technology Transfer, Law on Enterprises, Law on Investment, Law on Commerce, laws relating to secured transactions and other relevant sublaws mention on some forms of commercial exploitation of patent to encourage the commercialization of patent such as self-commercialization of patent by owners; transfer of industrial property rights to patents; mortgate/collateral, contribution of capital for doing business by patent rights.

However, commercialization of patent is rather new in practice of intellectual asset commercialization in Vietnam. Therefore, Vietnamese laws, in particular Law on IP, Law on Technology Transfer, Law on Commerce, Law on Investment, Law on Enterprises and laws relating to the secure transactions have many shortcomings and limitations in

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

making detailed forms of commercialization of patent to encourage commercial exploitation activities of patent. Patent in the current legal rules of Vietnam is still stipulated in “static position”, not “dynamic position”.

The main challenges in the current legal rules are the following points: there is not distinction between two types of patent assignment contract and patent licensing contract; the strict control of patent transfer contracts; lack of some patent licensing forms; transfer of patent is not considered as technology transfer so that the laws regulating and formality requirement of two types of contract are so different; there are not detailed regulations on procedures of mortgage/collateral, contribution of capital from patent rights and lack of detailed guidances for patent valuation.

These limitations and shortcomings bring about consequences such as the number of patent filing and certificates is too limited, not commensurate with potentials; the number of exploited patents is also too limited; the foreign investors do not want to transfer technologies into Vietnam; domestic technologies are very weak, which affects the process of Industrialization and Modernization, international integration and social-economic development of Vietnam.

In order to overcome the limitations and shortcomings, Vietnam’s Government should quickly modify, add the current legal rules and build new legal rules at the same time of Law on IP, Law on Technology Transfer and other relevant laws to ỉmprove legal rules on patent commercialization of Vietnam.

To have feasible and detailed solutions to improve the legal rules on patent commercialiations of Vietnam for innovation, which satisfies international integration requirements and is for social-economic development, the study on theories and practices relating to the patent commercialization of China is very imperative.

ACKNOWLEDGEMENTS

“This research has been done under the research project QG.22.59-Improving legal rules on patent commercial exploitation for innovation in Vietnam, of Vietnam National University, Hanoi.”

REFERENCES

Ali M. Imam (2006), *How Does Patent Protection Help Developing Countries?*, International Review of Intellectual Property and Competition Law (IIC), Volume 37, No. 3/2006,pp. 245-259.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Annual Report on Intellectual Property activities in 2020, publised in 2022 https://ipvietnam.gov.vn/en_VN/web/guest/bao-cao-hang-nam/-/asset_publisher/vTLYJq8Ak7Gm/content/bao-cao-thuong-nien-hoat-ong-so-huu-tri-tue-nam-2020?inheritRedirect=false&redirect=https%3A%2F%2Fipvietnam.gov.vn%2Fvi_VN%2Fweb%2Fguest%2Fbao-cao-hang-nam%3Fp_p_id%3D101_INSTANCE_vTLYJq8Ak7Gm%26p%20%_lifecycle%3Dview%26p_p_col_id%3Dcolumn-1%26p_p_col_count%3D1

Center for Research, Training and Consulting, *the Commercialization of intellectual property - a driving force for sustainable development for small and medium-sized enterprises in Vietnam*, https://htpldn.moj.gov.vn/Pages /chi-tiet-tin.aspx?ItemID=116&l=BanTin.

Circular No. 01/2007/TT-BKHCN.

Circular No. 16/2006/TT-BKHCN.

Civil Code of Vietnam in 2015.

Cohen, J. and Lemley, M. (2001), *Patent Scope and Innovation in the Software Industry*, California Law Review, No. 89, pp. 1-58.

Comprehensive and Progressive Agreement for Trans-Pacific Partnership, fulltext of English version at the website: https://www.mfat.govt.nz/assets/CPTPP/Comprehensive-and-Progressive-Agreement-for-Trans-Pacific-Partnership-CPTPP-English.pdf

Christopher Heath (1999), *Industrial Property Protection in Vietnam*, *International Review of Intellectual Property and Competition Law (IIC)*, Volume 30, No. 4/1999, pp. 419-441.

Decree 21/2021/ND-CP.

European Union-Vietnam Free Trade Agreement, fulltext of English version at the website: *http://trade.ec.europa.eu/doclib/press/index.cfm?id=1437*

Guide to Patent/Utility Solution Registration, National Office of Intellectual Property, 2004, page 1.

Hoang Giang, *Proposing a pilot mechanism to develop the technology spin-off business model*, Government e-Newspaper, https://baochinhphu.vn/de-xuat-co-che-thi-diem-phat-trien-mo-hinh-doanh-nghiep-khoi-nguon-cong-nghe-102220108101706381.htm.

Hoang Lan Phuong, *Mortgage of intellectual property - Legal aspects and enforcement*, Vietnam Journal of Science and Technology, No. 63, October 2021.

Holloway. H (1968), *Licensing and exploitation of patents*, *J.P.O.T.S.*, Vol. 2, No. 1, pp. 96-100.

Institute of Linguistics (Editor Hoang Phe) (2003), *Vietnamese Dictionary*, Da Nang Publishing House – Center for Dictionaries, Hanoi – Da Nang, page 846

John Barton (George E. Osborne Professor of Law, Emeritus) (2003), *Patents and the Transfer of Technology to Developing Countries*, Stanford Law School, presentation at the *Conference of OECD on IPRs, Innovation and Economic Development*, Paris, 29/08/2003.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.

Submetido em: 18/01/2024
Aprovado em: 19/04/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

John C. Green (1971), *Emerging restriction on the transfer of technology*, *IDEA*, Summer 1971, page 274.

Law No. 50/2005/QH11 promulgated by the National Assembly on November 29, 2005. This Law on IP was amended and modified in 2009, 2019 and 2022.

Moser, P (2003), *How Do Patent Laws Influence Innovation: Evidence from Nineteenth Century World Fairs*, NBER Working Paper No. w9909.

National Agency for Science and Technology Market and Science and Technology Enterprise Development, Ministry of Science and Technology, *Technology Transfer: In order for businesses not to "lose the rhythm"*, https://2075.com.vn/chuyen-Giao-cong-nghe-de-doanh-nghiep-khong-lac-nhip/

National Office of Intellectual Property, https://ipvietnam.gov.vn/web/guest/danh-sach-sang-che-kieu-dang-cong-nghiep-nhan-hieu-cua-63-tinh-thanh

Nguyen Huu Can, *The role of inventions in economic development*, Nhan Dan Online at the website https://nhandan.vn/khoa-hoc/vai-tro-cua-sang-che-trong-phat-trien-kinh-te305839/#:~:text=S%C3%A1ng%20ch%E1%BA%BF%20(SC)%20l%C3%A0%20t%C3%A0i,gi%C3%A1%20tr%E1%BB%8B%20cho%20x%C3%A3%20h%E1%BB%99i.&text=SC%20kh%C3%B4ng%20ch%E1%BB%89%20l%C3%A0m%20gia,v%C3%A0%20k%C3%ADch%20th%C3%ADch%20ti%C3%AAu%20d%C3%B9ng, accessed in 17/02/2022.

Patricia Kameri-Mbote (1994), *Patents and Development*, Law and Development in the Third World, Faculty of Law, Nairobi University, pp. 412-425.

Regional Comprehensive Economic Partnership, fulltext of English version can be seen at the website: https://wtocenter.vn/chuyen-de/16428-rcep-text-and-associated-documents

Zenoff David B. (1970), *Licensing as a means of penetrating foreign markets*, *IDEA*, vol. 14, No. 2, Summer 1970.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial 4.0 Internacional.