

Protection of Industrial Property Rights for Trademarks and Inventions at Higher Education Institutions and College in Vietnam - in Comparative Relationship with Thanh Hoa University, China

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ABSTRACT

In the context of globalization and increasing competition in the field of education, building and protecting industrial property rights for inventions and trademarks has become an important factor to help universities improve their position and quality of training. Brands are not only a symbol representing universities, helping learners identify one training institution from another, but also a tool to build trust for students and parents. However, reality shows that the establishment of industrial property rights for trademarks and inventions at current colleges and universities still has certain limitations. Within the scope of the research work, the authors will focus on clarifying the following issues: (i) Basis for establishing industrial property rights for inventions and trademarks, (ii) Subjects establishing ownership rights for trademarks and inventions at university and college education institutions, (iii) Practice of registering industrial property rights for trademarks and inventions of university and college education institutions with Comparison with experience at Tsinghua University, China. From the above problem, the authors propose useful solutions to improve this mechanism in the future in Vietnam.

Keyword: Protection, trademarks, patents, educational institutions, Vietnam

1. Theoretical basis for establishing industrial property rights for trademarks and inventions at higher education institutions and colleges in Vietnam

1.1. The concept of trademark

Based on Clause 16, Article 4 of Vietnam's Intellectual Property Law amended and supplemented in 2022, mark means any sign used to distinguish goods or services of different organizations or individuals. Accordingly, a trademark is a sign expressed in the form of words, images or a combination of words and images, capable of distinguishing the goods and services of one organization or individual from those of another. other (Clause 2, Article 72 of the Intellectual Property Law amended and supplemented in 2022). Accordingly, the brands of higher education institutions and colleges are often related to the school's official name, logo, emblem, or the school's training and research products. Some famous universities in Vietnam, such as: Hanoi National University, Ho Chi Minh City University of Science and Technology, Marks: The school name "Hanoi National University" and the school's logo have built and developed a strong marks, making a impressive in the hearts of students and the international community. It can be seen that registering trademark ownership of universities in Vietnam plays a strategic role in developing and protecting the school's brand. Firstly, trademark registration helps create differentiation and brand recognition in the context of many universities appearing, especially today in the educational environment where there is a lot of competition between training institutions. When owning a trademark, a university has the right to protect its name against infringements, thereby avoiding confusion from students and parents, and at the same time affirming the school's reputation in community. Additionally, trademark registration helps universities protect intellectual property, including training programs, research products, and education-related activities. This also creates conditions for the university to increase trust from international partners, attract many collaborative projects, and provide financial support for research and educational development. In particular, in the era of developing technology and e-commerce, a registered trademark will help the university manage and protect its reputation on online platforms, preventing fraud and abuse of names of educational and training institutions.

Besides, trademark registration also helps the university build a long-term development strategy. A strong brand not only creates trust for learners but also expands opportunities to develop business and trade education-related products and services, create a stable revenue source and support learning activities art.

For example, some facilities may offer online courses and cooperate with businesses and organizations to develop educational services in various forms. The trademark owner is a university or college educational institution, which means that educational institution holds legal ownership of the trademark that it has registered, used, and protected. A trademark here can be a school name, logo, symbol, or any sign used to distinguish the educational services of this institution from other ones. In short, registering trademark ownership is an important tool to help universities in Vietnam not only protect their reputation and intellectual property but also help them build sustainable development strategies and improve their reputation. high position in the domestic and international educational environment (Tran Le Dang Phuong & Nguyen Thanh Phuong, 2024).

1.2. Invention concept

An invention is a technical solution in the form of a product or process to solve a defined problem by applying natural laws, based on Clause 12, Article 4 of the 2005 Intellectual Property Law, amended. Vietnam's 2022 amendments. An invention can be seen as a technical solution in the form of a product or process to solve a specific problem in the field of technology. Accordingly, patent subjects in higher and higher education institutions will play an important role in promoting research and development, contributing to improving the competitiveness of educational institutions. According to the provisions of the Intellectual Property Law, the objects of invention in higher and higher education institutions include: first, new technology products: are new equipment, machines, materials or technologies. new tools developed from research in academic environments; Second, production processes: new processes in production, water and wastewater treatment, cultivation, preservation, processing, or manufacturing developed from research results.

For educational institutions in Vietnam, inventions play an important role, not only helping to promote the development of scientific research but also contributing to enhancing the reputation of educational organizations. Inventions are the result of the research and creative process, helping to convert theoretical ideas into applicable products. This helps universities and colleges affirm their research, creativity and innovation capabilities in international forums and attract the attention of domestic and international partners.

Furthermore, inventions also contribute to the commercialization of scientific products, creating additional sources of income for educational institutions. Patent registration and protection not only protects the interests of researchers and educational institutions but also opens up opportunities to cooperate with businesses in bringing products from research into actual production and consumption. This also promotes relationships between schools and businesses, supporting the technology transfer process.

In addition, inventions also play an important role in improving training quality. When participating in the process of research and development of inventions, students and lecturers will have the opportunity to experience and learn practical skills, thereby developing creative thinking and problem-solving ability. Institutions that own many inventions have the advantage of attracting potential students and scientists, creating a rich and diverse academic environment.

Finally, inventions not only bring economic benefits but also contribute to the development of the country's science and technology. Inventions from higher and higher education institutions help to increase competition and innovation in society, while contributing to solving major problems in technology and sustainable development. Thus, encouraging and developing inventions in educational institutions in Vietnam is an indispensable factor to improve the quality of education and socio-economic development (Tran Le Dang Phuong & Nguyen Thanh Phuong 2024).

2. Reality of registering and establishing ownership rights to trademarks and inventions of higher education institutions and colleges

Science and technology research results are one of the important criteria to evaluate the true capacity of a university. In particular, articles (scientific publications) and inventions are two special types of products of the research process. Establishing a trademark aims to affirm the position of the educational institution and combat acts that cause confusion between higher and higher education institutions. In Vietnam, managing intellectual property activities in universities is a relatively new issue in both theory and practice. Research on the management of intellectual property activities at universities is still very limited and modest, mainly existing in the form of articles and presentations at scientific conferences.

To enhance the value of registration of intellectual property activities at universities in Vietnam, in 2008 the Ministry of Education and Training of Vietnam issued Decision 78/2008/QĐ-BGDĐT signed on December 29, 2008. of the Minister of Education and Training regulating the management of intellectual property activities in higher education institutions with

the purpose of encouraging creative activities, promoting the process of exploiting and transferring intellectual property rights and protecting intellectual property. intelligence of individuals, groups, organizations and the higher education institution itself. The practice of registering patent protection of higher education institutions and colleges is that by 2023, there will be about 200 domestic patents and several dozen international patents (Hong Hanh, 2023). Patents are still modest compared to current human resources, especially there are university and college education institutions that do not have patents.

Regarding establishing trademark ownership, by 2024, about 40 trademarks of higher education institutions and colleges have been granted protection certificates. Among them, we can mention many higher education institutions and colleges that have been granted two degrees of trademark protection for similar signs, specifically, Ho Chi Minh City University of Law was granted 04 trademark protection degrees from Ho Chi Minh City University of Law, 1996. Accordingly, many universities in Vietnam today have focused on building and registering their trademarks and inventions. However, the rate of registration to establish trademark ownership is still limited. There are inventions that are recognized by educational institutions but have not yet established rights with the National Office of Intellectual Property, specifically, Vietnam National University-HCM owns 274 inventions, of which 57 subjects have been granted exclusive protection certificates (Huu Thong, 2023).

According to the Department of Intellectual Property (Ministry of Science and Technology), in the period 2013-2022, the average growth rate of intellectual property (IP) applications, including inventions, utility solutions, protection plant varieties, trademarks...) in Vietnam is 9.1%/year, of which intellectual property registration applications of Vietnamese subjects average about 150 applications/year and are increasing faster than application by a foreign subject. The proportion of patent applications is as follows: Business sector 40%; individuals 34%; university 15.5%; research institutes 10.3% (Hong Hanh 2023).

To achieve achievements in scientific research and technology transfer activities, higher education institutions and colleges have gradually established specialized research groups, interdisciplinary research groups and have policies to encourage students to do scientific research. In 2011, VNU-HCM established the Intellectual Property and Technology Transfer Center (IPTC) with the task of managing and registering inventions in VNU-HCM. In addition, in 2015, VNU-HCM issued the Regulations on Intellectual Property Management in VNU-HCM as a legal basis to more strongly promote intellectual property registration activities (Huu Thong, 2023). Other higher education institutions and colleges have established independent intellectual property support departments, but operations are still confused.

From the practice mentioned above, it can be seen that establishing ownership rights to trademarks and especially to inventions at higher education institutions and colleges in Vietnam is currently facing many limitations. due to many different reasons, which can be listed and clarified as:

Firstly, awareness of intellectual property is not high, as many educational institutions do not focus on registering trademarks and inventions. Trademarks and inventions are considered important intellectual property, which can bring economic benefits and reputation to the school. However, not all establishments understand the long-term value of intellectual property protection. In evaluation practices at many higher education institutions, IP criteria have not been given due attention and evaluation scores have not been high in recent times (Center for Research, Training and Support, Consulting, 2022).

When compared from the experience of The Tsinghua University - THU, China, founded in 1911 in Beijing, this is the training facility in China that owns the most patents of all university in China. Accordingly, on March 15, 2016, WIPO announced that the number of applications for patents, trademarks and industrial designs in China's international market continued to increase and set records. In 2016, the number of registrations increased by 44.7% compared to previous years. Particularly at "The Tsinghua University, it entered the top 20 from the ranking of patent international applications of educational organizations in 2016" (CRI, 2017).

In 2016, China's Tsinghua University ranked 51st on the list of the most innovative universities in the world (The Reuters 100: The World's Most Innovative Universities) compiled by Reuters - the world's largest news agency (Reuters Group). plc) ranking (Anh Tung, 2017). In 2017, it rose to 31st place in the rankings (David Ewalt, 2017). Accordingly, from initial experience in 2017, this training facility has built and promulgated intellectual property mechanisms and policies to protect its intellectual property, and is the unit that establishes and issued the earliest IP policy in the university system in China. This policy identifies and specifically guides the objects and content of intellectual property and focuses on emphasizing regulations on the benefits that researchers enjoy when intellectual property is managed. According to this

policy, all policy subjects apply such as: school staff, including lecturers, collaborating researchers, temporary staff, students and documents and articles of those students. Visiting scholars... will have to sign a commitment that they will comply with the policy (Pham Thi Thuy Hang & Nguyen Thanh Hung 2018).

It can be seen that this policy has determined that intellectual property at universities will include: patents, trade secrets, know-how, trademarks, copyrights, and any related rights; At the same time, clearly identify the tasks performed by employees; right of publication, sharing of owner's interests, whereby when a project is completed, all results must be disclosed to the management department, and this department will consider should apply for patent or not. All disclosures are prohibited before the grant of a patent; if the result has commercial value but is not suitable for a patent, it will be kept as a trade secret and then measures will be taken. measures to maintain confidentiality are implemented. An important content in Tsinghua University's intellectual property policy is determining ownership rights and profit division. Specifically, when an industry sponsors research, certain terms must be agreed upon regarding intellectual property rights, patent cost allocation, intellectual property revenue sharing, and the contract must be approved. checked by intellectual property authorities before it is implemented. In addition, the inventor's interest is also specified as at least 25% of the revenue generated from the IP and received in cash or equity (Hua Gua, 2017).

Secondly, in Vietnam, the issue of slow registration of intellectual property rights at universities may be due to the influence of the psychology of "afraid" to register, and there is no mandatory registration of registering in intellectual property rights each scientific research. In addition, the specialized team in intellectual property in institutions is still very limited, lacking legal experts to advise and implement the registration work. Besides, there is also a lack of experience and legal skills, as carrying out legal procedures to register and protect trademarks and inventions requires legal knowledge and practical experience.

Many universities do not have a specialized team of intellectual property, so they have difficulty registering ownership rights or protecting inventions when they are infringed. In describing the technical nature of the invention/useful solution. Although the owner clearly understands the nature of the invention, there is still some confusion in describing the product in accordance with the provisions of the Intellectual Property Law (must show the scope of protection in accordance with the invention drawings). The way to express descriptive content is much different from writing an article or a presentation on a scientific topic. "The description needs to completely demonstrate the nature of the registered technical solution; There must be enough information so that, based on that, any person with average knowledge of the corresponding technical field can implement that solution. At the same time, the description must also clarify the novelty, level of creativity, and ability to apply technology of the technical solution (Ngoc Mai, 2024).

However, if there is a comparison with the experience of Tsinghua University, China to solve the above problem, this training facility has initially established an office specializing in technology transfer and technology transfer. The university's intellectual property committee, according to this organizational structure of Tsinghua University, was established to manage intellectual property and will be implemented virtually through a focal point, the TTO (Technology Transfer Office). specializes in technology transfer). The specific responsibilities of this office include: drafting policies related to intellectual property of the university; monitor policy implementation; establish intellectual property management systems and procedures; education and propaganda about intellectual property; Check the contract terms between universities and industries. In particular, at Tsinghua University there is also a committee in charge of intellectual property consisting of a vice president and managers from functional departments of the school. It is this committee that supervises all activities of the TTO. The TTO regularly updates its work and periodically reports news and laws related to intellectual property to the intellectual property committee. The TTO of Tsinghua University also establishes procedures and rules for examining collaborative research agreements and sponsored research agreements between the university and other organizations and designs a standard contract for the research agreement. Recently, TTO of Tsinghua University also started providing services in consulting on copyright infringement. In addition, Tsinghua University also established a special fund to pay patent costs, including application fees, review fees, other fees and maintenance fees for the first three years after when the patent is issued (Bao Tien, 2013).

Thirdly, in reality at some educational institutions in Vietnam, we find that scientific research activities are not strong enough, as university and college educational institutions still mainly focus on training instead of technology research and development, leading to a limited number of registered patents. In addition, working and teaching at higher education institutions, with high requirements for professional quality, university lecturers often face great pressure on time. Besides the two central tasks of teaching and scientific research, lecturers also have to complete many other administrative tasks, of

which many lecturers also hold different positions in the system of organizations, unions at work. Therefore, it is required that lecturers need to plan, arrange and manage time appropriately to conduct scientific research, from developing topics, collecting data, analyzing and writing articles. Without a clear and specific time use plan, lecturers are easily pressured and have many difficulties in completing their projects and scientific research (Nguyen Thi Thuy Giang & Nguyen Huu Established 2023).

In addition, there are still risks in research and technology transfer activities that create inventions. Research to create inventions is an activity aimed at discovering, discovering the nature and rules of things and phenomena and finding measures and solutions to apply the above knowledge into practice. And when new knowledge and methods are applied, it is difficult to completely avoid certain risks, because practice is extremely diverse, lively, always moving and changing, and human perception is extremely diverse. Humanity is a process that goes from low to high, from simple to complex, and gaining a comprehensive and thorough understanding of a problem is not easy. Therefore, a creative project or a research project that creates an invention will not always achieve successful results as expected (Nguyen Thi Thuy Giang & Nguyen Huu Lap, 2023). Sometimes, research lecturers will face many risks, obstacles, and even failures in research. These failures can come from many reasons (both objectivity and subjectivity) such as lack of documents, research resources, inappropriate research methods or inadequate research design and planning. reasonable... On the other hand, a complex research project may require the participation of not just one but a group of scientists. When combining research, the lack of connection, lack of cooperation or failure of one or more scientists in the group can also affect the overall success of the entire project or research work. In addition, when the research is completed, transferring technology into practice for application is still a major obstacle for universities in Vietnam today.

In solving problems encountered in Vietnam, at Tsinghua University in China, there has been a connection between the university and business - a university-affiliated company model: In 1999, the Ministry of Education China has launched a plan to develop Chinese higher education for the 21st century. A highlight of this plan is to accelerate university technology transfer by encouraging universities to establish high-tech company. Realizing the trend that high-tech companies can boost the economy, many local governments in China have supported this plan by providing their local universities with loans, housing land and tax reduction, and have policies to encourage local university lecturers to establish technology parks. Currently there are about 40 technology parks associated with universities across China, a large number of companies in these technology parks are companies founded by university scholars based on their technology (Hua Gua, 2017). Technology transfer activities between Thanh Hoa University and businesses have been enhanced. In particular, to transfer research results into life, Thanh Hoa University not only cooperates closely with businesses but also establishes businesses directly under its own unit to speed up the transfer process, in In particular, Thanh Hoa University clearly defines the operating mechanism of the enterprise as well as has a technology transfer mechanism oriented to market demand.

At Thanh Hoa University, Thanh Hoa Holdings was born with 98 subsidiaries, 6 different large and small industrial parks (CRI, 2017). In another prominent case study, Tsinghua Tong Fang Co., Ltd, went public in 1997 on the Shanghai stock market with Tsinghua University as the main shareholder. This company acts as a cradle for creating intellectual property assets of Tsinghua University through two methods: first, attracting capital for the commercialization of inventions and research from the university; Second, research funding at universities is based on the company's understanding of market needs.

The company currently owns more than 300 Chinese patents in information technology, energy resources and environment, and applied radiation technologies, as well as 44 software copyrights; In the first half of 2005 alone, the company achieved revenue of about 450 million USD. In addition, Tsinghua University has collaborated with multinational corporations (MNCs) in R&D after China announced the Science and Technology Law of the People's Republic of China in 1993 (Pham Thai Quoc, 2010). This law encourages the promotion of R&D cooperation activities between Chinese research institutes and universities with foreign partners, which is an important legal basis in solving problems related to protection trademarks and patents at training facilities in China. This is an important law for the board of directors of Tsinghua University to plan relevant policies, accordingly, it has launched a strategic plan to promote technology in a 27-year roadmap divided into 3 stages of cooperation. with businesses (1993-2020). The field of cooperation between Tsinghua University and foreign investors has also been expanded, if in 1997 the school only invested in patent protection in a number of basic industries such as mechanic engineering and construction. ..., by the year 2000, it had expanded to include fields of study such as: Electronic mechanics, computer science, nuclear and new energy, and mechanical engineering.

Through the above experience, it can be commented that in order to universities in Vietnam to be able to transfer

knowledge into life and protect property values such as trademarks and patents effectively, it is necessary to conduct establishing company models in schools is extremely necessary, this will promote the development of science and technology, when students can have more opportunities to interact with the industry, and at the same time, will have a basis to protect the company's intellectual property products, instead of currently, as in Vietnam, the lecturers have to carry out teaching work, and also take on additional tasks. procedures related to the protection of intellectual products of training institutions (Pham Thi Thuy Hang & Nguyen Thanh Hung, 2018). Through experiences from Tsinghua University, which is one of the typical training institutions in protecting the training institution's own trademarks and patents, it is realized that educational institutions in Vietnam need to proactively promulgate intellectual property policy; Establish a specialized technology transfer department and intellectual property committee in the university; linking universities with businesses through the university-affiliated company model; Focusing on educating and raising awareness for officials, lecturers, and students about intellectual property policies is a prerequisite issue that needs to be implemented in the current period.

3. Some solutions to promote the establishment of industrial property rights for trademarks and inventions at higher education institutions

3.1. Organize propaganda and support for identification of industrial property rights objects at university and college educational institutions

In order to change the perception of the value of intellectual property assets for training activities of university and college education institutions, as well as demonstrate responsibility towards society. Higher education institutions and colleges need to organize propaganda among officials, lecturers and students about intellectual property laws in general and industrial property rights in particular. In particular, it is necessary to evoke the conditions for an object to become an invention during the process of scientific research and implementation of projects.

Besides, managers, leaders of universities and research organizations need to focus on drafting and implementing organizational policies and institutions on the management of intellectual property activities, which reflect the vision and mission of the universities, and at the same time promulgate procedures for implementing intellectual property management. The process of managing intellectual property activities needs specific guidance from discovery, declaration, recording, statistics, protection registration to trade promotion of intellectual property. Build and support technology transfer agencies/offices with resources and capacity to protect, exploit and commercialize intellectual property, for the benefit of both the school and society.

Furthermore, focusing on training and professional development for staff specialized in intellectual property management in universities. The professional capacity of officials in charge of intellectual property management activities is a factor that plays an important role in the effectiveness of intellectual property management at universities. Therefore, the office specialized in intellectual property management needs to recruit, train and foster a team of professional staff, seriously trained in intellectual property and intellectual property management, knowledgeable and knowledgeable. Spend all your time on intellectual property management (Pham Thi Thuy Hang, Nguyen Thanh Hung, 2018).

3.2. Establish a research group

First of all, carrying out projects and scientific research effectively, first of all, lecturers need to develop plans and manage time appropriately to have enough time for scientific research. At the same time, lecturers also need to consider and request universities to provide the necessary budget, equipment and support services to carry out successful research projects.

Besides, it is necessary to make the most of the brainpower and experience of colleagues at universities to achieve the highest efficiency in research. Lecturers can form research groups in case many lecturers have same field of interest. This can help lecturers exchange ideas, share experiences and support each other in the research process. Team collaboration also increases the likelihood of achieving valuable results. Besides building research groups within training institutions, lecturers can also seek and establish connections and cooperation with researchers and organizations at home and abroad. This cooperation not only helps lecturers expand their horizons and access new resources, but also gives them the opportunity to exchange new and advanced knowledge and techniques being applied in the scientific world (Phuong, Nguyen Thanh, Tran Thanh Khoe, and Tran Thu Van, 2023).

Finally, when all of the above factors are met, lecturers need to choose a research topic. To ensure effective research, lecturers need to choose research topics that are suitable for their field of expertise and have high applicability, can create

practical value and are of interest to the scientific and social community. heart.

3.3. Promulgate regulations to encourage creativity in university and college educational institutions

To begin with, universities need to create an environment that actively supports and encourages scientific research. This includes creating collaborative research opportunities, organizing scientific discussions and seminars, building research groups and implementing joint projects. A supportive and encouraging environment from the institution will encourage faculty members to actively share ideas, learn from each other, and develop research skills.

In addition, educational institutions increasingly organize in-depth training courses on scientific research for lecturers, focusing on research methods, data analysis, technology and publication process. Scientific articles in scientific journals. Periodic training helps lecturers update the latest knowledge and skills in their field of research. In addition, universities should also ensure that lecturers have enough necessary resources to conduct scientific research, such as providing research funding, laboratories, software, and advanced technology. and library documentation system.

Eventually, universities also need to regularly evaluate and orient research activities of staff, lecturers and students according to local requirements. This helps ensure that their research meets quality criteria and has a positive impact in their professional fields and in the general development of each school and locality. At the same time, if possible, schools also need to encourage and support lecturers to publish research results through publishing scientific articles in prestigious journals and participating in seminars and conferences domestic and foreign science. This gives lecturers the opportunity to share their new discoveries and contribute to the overall development of science.

3.4. Mandatory establishment of a specialized intellectual property department in higher education institutions and colleges

In order to support officials, lecturers, students and higher education institutions, colleges and universities to establish industrial property rights, meeting the requirements of improving the quality of practical training at universities, college. We propose that the Ministry of Education and Training supplement regulations on standard conditions for higher education institutions to have a Department to manage and support the exploitation of intellectual property assets.

From the current reality of intellectual property activities of universities in Vietnam, we need more state mechanisms to support universities in managing intellectual property activities. , because policy deficiencies have contributed to the stagnation of intellectual property management. The urgent issue is to build and innovate a system of regulatory documents at each level, depending on the function of each level, with specific instructions so that lower-level enforcement departments can easily implement them. Currently, in addition to the highest document, the Intellectual Property Law, many administrative agencies in many different sectors and levels have also issued documents regulating the management of intellectual property activities. However, the common point of these documents is that they only provide regulations in principle, but there are no documents that actually provide detailed instructions on the processes and methods of implementing the management of intellectual property activities, causing difficulties and embarrassing for the enforcement department.

4. Conclusion

From the above analytical problem, it shows that patent registration activities play an increasingly important role in the science and technology activities of universities and colleges. With the mission of "creating important scientific research projects; a leader in innovation, making an important contribution to the country's development", higher education institutions and colleges gradually effectively implement the strategy of developing intellectual property and bringing ownership activities intelligence becomes a regular activity. To achieve the above goals, higher education institutions and colleges need to overcome limitations that prevent scientific research and patent registration activities, and at the same time implement well solutions to encourage and ensure that the subject matter of the invention is exploited and protected in practice.

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