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INTELLECTUAL PROPERTY MANAGEMENT TO SERVE THE INNOVATION ACTIVITIES OF VIETNAM'S ENTERPRISE

Nguyen Huu Xuyen 1

¹ National Institute for Science and Technology Policy and Strategy Studies (NISTPASS), Visti-Most, Vietnam

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Abstract

Intellectual property (IP) that are effectively exploited will determine the competitiveness of the economy, accelerating the innovation process of economic sectors and businesses to create many new products and processes, new methods of organizing production, accepted by the market and society. Effective IP management will promote the process of protecting, maintaining and developing a business's brand, associated with intellectual property rights in economic activities, technology transfer and innovation. By using qualitative and quantitative research methods, this article will clarify the current status of enterprises' IP management capacity, thereby proposing policy solutions to support the improvement of IP management capacity to serve the innovation activities of Vietnam's enterprise.

Keywords: Intellectual property management, innovation

1. Research overview

Effective IP management will encourage research, technology development and improve the quality of products supplied to the market. IP protection will limit violations such as the exploitation of IP without the permission of the patent owner, or the production of counterfeit goods and other violations. In the long term, the IP system has a proportional relationship with technological development, playing a positive role in economic development. In fact, in some ways, a weak IP protection system will allow a country to improve its technological capacity at low cost, especially low-middle income countries. However, it must be affirmed that a strong IP system is always the goal for

rapid and sustainable economic development of a country. Developing IP, especially patent, and improving IP management capacity to serve innovation activities is of interest to many countries around the world. According to the World Intellectual Property Organization (WIPO, 2022), a total of more than 1.6 million patents were granted in 2021, of which 88% were granted to inventors in 6 countries (China, USA, Japan, Korea, Germany, UK). China leads, accounting for 38% (equivalent to more than 607,000 patents); next is the US with more than 286,000 patents, Japan ranks third with nearly 257,000 patents.

Intellectual property management is closely related to the innovation activities of

enterprise. Economic benefits brought by natural assets can be direct or indirect benefits: direct benefits are income streams generated from the direct exploitation and use of natural assets (income from transfer and transfer of public assets, from saving costs of renting and purchasing public assets); Indirect benefits are income streams from the consumption of products/services containing assets, excess profits or increased income for the business. Recognizing the benefits that IP brings to businesses through innovation, many businesses around the world have continuously increased registration for protection of IP. For example, for large US enterprises, in 1975, the proportion of IP value only accounted for about 16.8% of the value of the enterprise, by 2005 this proportion accounted for about 80%, meaning the value of tangible assets only accounts for about 20% of the total value of the business. In particular, in some fields, the total market value of an enterprise is almost determined by the value of IP, as in the field of essential goods it is 94%, healthcare 89%, and information technology 82% (Russel and Gordon, 2010). Previously, most of the value of a business was determined by monetary assets and tangible assets, but now those assets have been almost replaced by assets and other intangible assets. According to Interbrand (2013), IP has also brought great commercial value to businesses, for example: in 2013, the value of the "APPLE" brand was 98.3 billion USD, "GOOGLE" was 93 billion USD. .3 billion USD, "COCACOLA" is 79.2 billion USD, "IBM" is 78.8 billion USD, "MICROSOFT" is 59.5 billion USD. This shows that IP plays a role in creating market value for businesses, is profitable and is an important tool to promote economic growth.

In Vietnam, iP management to serve innovation activities is of interest to the Party and State. The IP strategy until 2030 was approved under Decision No. 1068/QD-TTg dated August 22, 2019 of the Prime Minister, with the view that IP activities have the active participation of all. All entities in society, including research institutes, universities, creative individuals, especially businesses, play a key role in creating and exploiting IP. Resolution No. 52-NQ-TW dated September 27, 2019 of the XII Politburo requires the effective and reasonable protection and exploitation of IP cre-

ated by Vietnam. The Law amending and supplementing a number of articles of the IP Law, effective January 1, 2023, has institutionalized the Party and State's guidelines and policies on IP in the direction of innovation is encouraged. IP rights are protected and enforced effectively. During the period 2020-2023, 60 Vietnamese localities have issued documents related to policies to support and promote the protection, management and development of local IP. During the period 2014–2023, the average annual growth rate of patent and utility solution applications in Vietnam is 9.8%. Foreign entities have a total number of patent applications of 60,517, 7 times higher than Vietnamese entities (7,560 applications). However, the total number of utility solution registration applications in the past 10 years by Vietnamese entities is more than 1.3 times larger than that of foreign entities. The growth rate of utility solution registration applications by Vietnamese entities is 12%/year, higher than the growth rate of foreign entities (9.4%).

Intellectual property is considered a lever for innovation (Dinh Huu Phi, 2022). Innovation activities have many different levels. It could be implementing a new idea, creating inventions, useful solutions, works of art or new plant varieties. Supporting businesses to innovate through IP is also promoted in Vietnam, helping businesses better manage and exploit sources of IP. Typical examples: intellectual property management model at Hanoi Dairy Joint Stock Company, DABA-CO Vietnam Group Joint Stock Company, Ha Long Shipbuilding Company Limited, Vinh Thang Joint Stock Company. The IP development program has supported international patent protection for Vietnamese scientists, and supported the exploitation and application of inventions for science and technology organizations. Thereby contributing to promoting innovation and creating value for businesses and society; at the same time, it has supported the protection and management of intellectual property for agricultural products, such as Cao Phong oranges, Hoa Binh province; Pomelo in Binh Minh year, Vinh Long province; Ca Mau tiger shrimp, Ca Mau province; Cau Duc Cluster in Hau Giang; Ha Giang Orange, Ha Giang province; Cu Lao Cham bird's nest - Hoi An, Quang Nam province; Phu Yen spiny lobster, Phu

Yen province; Hue Melaleuca oil; Ham Yen Orange, Tuyen Quang province.

Thus, all countries pay attention to IP management to improve innovation capacity in businesses. IP has a wide scope, this article limits the scope of IP that is subject to industrial property rights to include: inventions, utility solutions, industrial designs and trademarks. Based on the assessment of the current situation, will propose solutions for IP management capacity to serve innovation activities in Vietnam's enterprises.

2. Research method

To obtain information about IP management and innovation at enterprises, this study collects secondary data through research works published domestically and abroad, analyzing analyze policy and legal documents of countries to see the relationship between IP management and innovation activities at enterprise.

To further clarify the results of research on IP management serving innovation activities in Vietnam's enterprises, the study conducted a survey of experts, entrepreneurs, and managers in Vietnam (Convenient sampling with 109 businesses) in the field of science and technology, this is one of the limitations of this study. The information obtained is one of the important bases to evaluate the current situation and propose solutions to improve policies to support businesses in managingIP to serve innovation activities in Vietnam.

3. Research result

About innovation activities. Compared to small enterprises, large enterprises pay more attention to innovation activities with 7.5% of large enterprise having a science and technology fund compared to 1.5% of small enterprises and 4.0% of medium-sized businesses; and 18% of large enterprises have an R&D department compared to 3.1% of small enterprises and 8.9% of medium enterprises. These things have greatly affected the innovation activities of enterprises when innovation has been implemented in 67.2% of enterprises with science and technology fund, compared to 27.4% of enterprises without science and technology fund. Similarly, innovation has been implemented in

71.5% of enterprises with an R&D department, compared to 26.3% of enterprises without this department (NASATI, 2022). Innovation activities in enterprises in the form of purchasing and renting technology, machinery, and software account for the largest proportion of 18.8%, followed by self-conducting R&D, 11.8%, and marketing activities. and brand equity is 10.3%; The lowest form of innovation is buying products/brands from outside (1.8%). The rate of enterprises innovating products is 14.2%, of which 6.8% of enterprises innovate only products and 7.4% of enterprises innovate both products and processes. By enterprise size, 28.8% of large enterprises have product innovation compared to 9.7% of small enterprises and 20.3% of medium enterprises. Basically, innovative products are made by enterprises themselves (99.1% for large enterprises, 92.8% for small enterprises and 90.5% for medium enterprises).

Regarding IP activities. In 2022, the Vietnam Intellectual Property Office (NOIP) received 140,903 applications of all types (an increase of 7.1% compared to 2021), including 78,086 applications to register industrial property rights (an increase of 3.3% compared to 2021), and 62,817 other types of applications (an increase of 12.1% compared to 2021). The NOIP has processed 113,906 applications of all types, including 65,466 applications to register industrial property rights (down 12.2% compared to 2021) and 48,440 other applications/requests (up 3.4% compared to 2021); granted 42,279 industrial property protection certificates (an increase of 8.3% compared to 2021).

The State's support for businesses has improved over the years. Enterprises receive support from the State mainly through technological innovation policies (35.5% of enterprises in 2021 compared to 16.3% in 2018) and credit (26.4% of enterprises compared to 20.3% in 2018). Small businesses receive more support than large businesses, while medium-sized businesses have not received much attention.

The result of a survey of 109 enterprises show that having a high awareness of the importance of implementing innovation activities and IP management (Table 1).

Table 1. Enterprise awareness of the need to carry out innovation activities and IP management

Innovation activities	Average score	Standard deviation
Product innovation activities	4.24	0.792
Process innovation activities	4.07	0.754
Organizational innovation activities	4.20	0.950
Marketing innovation activities	4.18	0.735
Activities of establishing IP rights	4.34	0.863
Activities to protect IP rights	4.06	0.864
Commercialization of IP rights	4.24	0.92
Collaborative activities to improve IP management capacity through innovation	4.22	0.786

Source: survey result

In terms of relationships, enterprise awareness of innovation activities (IN) is positively related to activities of establishing IP rights (XLQ), Commercialization of IP rights (TMH). Collaborative activities to improve IP management capacity through innovation(LK), at the same time, it is inversely proportional to the protection of IP rights (BVQ).

$$F(IN) = 3.813 + 0.075*XLQ - 0.074*BVQ + 0.098*TMH + 0.046*LK.$$

The capacity to manage IP to serve innovation activities of enterprise is demonstrated through: the capacity to plan for receiving IP to serve the enterprise's innovation activities; planning capacity to establish IP rights to serve the enterprise's innovation activities; capacity to organize commercialization and transfer of IP to serve innovation activities of enterprises; the capacity to create IP to serve the innovation activities of enterprises; capacity to build a process to control IP to serve the enterprise's innovation activities; capacity to build coordination and linkage processes to develop IP to serve the enterprise's innovation activities. Although enterprises have carried out activities to improve their capacity to manage assets. However, the results achieved are not high, there are still many limitations, of which, build coordination and linkage processes to develop IP to serve the enterprise's innovation activities is of most concern to enterprises (Average score 2.74, standard deviation 0.907) and the least paid attention is capacity to establish IP rights to serve the enterprise's innovation activities (Average score 2.29, standard deviation 0.831).

The ability to manage IP to serve the innovation activities of an enterprise depends on many ideas, wishes, and aspirations of senior managers in the enterprise; practical issues arising in the enterprise's production and business activities; competitive pressure and State support packages through preferential policies. Among them, the aspirations of senior managers and the State's support packages have the most important significance in improving the capacity to manage IP to serve the innovation activities of enterprises.

In addition to the fact that enterprises have a high awareness of the need to carry out IP management and innovation activities, enterprise also have a need to improve the capacity to manage IP to serve innovation activities. Survey result with 109 observations showed that 80.7% agreed with this statement (Average score 4.22; standard deviation 0.916). Of these, 30.3% are interested in exploiting patent and useful solution, 14.7% are interested in industrial design, 39.4% are interested in trademark and 15.6% are interested in to other types of IP to promote innovation activities. In particular, enterprises pay a lot of attention to the exploitation of Vietnamese inventions and useful solutions that are protected, foreign inventions that are not protected or whose protection period has expired in Vietnam; IP management support activities for enterprise, especially IP valuation consulting and auditing support activities, focusing on patent and trademark.

Even though enterprises have a need to improve their capacity to manage IP to serve innovation activities, the number of businesses with R&D departments and establishment of science and technology development funds is not many. Survey results show that 76.1% do not have a clear specialized R&D department (a specialized R&D department is understood as a department/department, a center or can be a team, a department with the following functions: specializing in research, testing, development of new products, new technological processes or research on technical improvements of existing products and technological processes), although there are still part-time personnel R&D activities. This also has certain similarities with the results of a survey of 7,128 businesses (NASATI, 2020): 763 enterprises (10.7%) said they had an R&D department. of the 763 enterprises with an R&D department, there are 728 enterprises ((95.4%) with innovation. Thus, if an enterprise has an R&D department, it can be confirmed with 95.4% confidence that the enterprise has innovation.

4. Conclusion and recommendation

Firstly, complete policies to support the enterprise in developing plans to receive and establish IP rights to serve the enterprise's innovation activities. Receiving and establishing intellectual property rights will be input for the innovation process of enterprise. Therefore, it is necessary to continue to support enterprise in researching, analyzing the market, identifying types of IP, setting goals and supporting resources to achieve goals. In addition, it is necessary to create a favorable legal environment and improve policies and laws on IP in the direction of integrating policies to promote innovation, establish and protect IP rights in strategies, innovation development policy, economic, cultural and social.

Secondly, support the enterprise in organizing the commercialization and transfer of

IP to serve their innovation activities. To do this, the State needs to encourage and improve the efficiency of exploiting intellectual property by forming and developing a network of innovation and technology transfer centers at research institutes, universities and research institutes and large businesses; promote the implementation of policie to develop industries with high level of using IP, creating quality products for export.

Thirdly, have adequate support policies for enterprise to create IP to serve their innovation activities. The State needs to encourage the creation of creative ideas, research and develop ideas into all kinds of IP, promote technology improvement from IP to create products and services with high added value; guide the enterprise to create and effectively exploit commercial instructions for products and services.

Fourth, support the enterprise in building a process to control IP for innovation activities; strengthen coordination between state administrative agencies and judicial agencies in protecting IP rights; coordinate research on strengthening the role of courts in resolving IP cases; promote the development of IP appraisal services and legal consulting services on IP rights protection to better serve innovation activities of enterprise.

In addition, support the enterprise in building coordination and linkage processes to develop IP to serve innovation activities; view the state's S&T funding as a budget to support development and S&T products as public goods, not public assets; there are preferential loans and taxes for the development of high technology, green technology or high technology combined with green technology to promote the development of internal core technology based on IP.

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