

Patent Registration and Innovations in Thailand: Impediments or Improvements?

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ABSTRACTS

Innovations form another drive for economic development. Without them, market will not be attractive for consumers as they only buy what is needed. Research and development improve innovations and technology to suit the needs of consumers, and the reward for innovators are patents offering exclusive to the innovations for 20 years; at the same time, society receives benefit from patents by the disclosure of innovations. Unfortunately, Thailand is not yet fully excelling in its technology development although has improved. A significant problem is the minor degree of research in many fields to improve innovations and technology. As a consequence, there are only small numbers of Thai innovations that can be industrialized and protected under patents. Yet while patent registration can indicate the growth of innovations and technology, it can also obstruct development. The article tries to identify the problems in the patent registration process and suggest possible solutions as well as proposing patent strategies for Thailand.

I Introduction

In 1963, the Patent Administration Division and Patent Investigation Division were established under the Department of Commercial Registration, recognizing patent rights and offering protection. (Kuanpoth, 2002) Subsequently, in 1979, Thailand enacted its first patent law, the Patent Act B.E. 2522 (PA). After the pressure of the U.S., Patent Act B.E. 2522 was amended by Patent Act B.E. 2535 to allow the registration of patent for pharmaceutical products and to extend the term of an invention patent from fifteen to twenty years. (Hemarachata, 2001, pp. 129-130) Subsequently, the Patent Act B.E. 2542 was issued to be in compliance with the Uruguay round of the General Agreement on Tariffs and Trade under the World Trade Organization. (Hemarachata, 2001, p. 130)

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Under the law, technology and innovations in Thailand receive protection systematically. The patentees can search for remedies from judgment under both Civil and Criminal Law from a specialized division in the Intellectual Property and International Trade for any infringement. Thais have become more focused on gaining patent registration for their innovations as Thailand has furthered more scientific and technological developments, to a great degree through the support of government policies and research funding. (Office of National Research Council of Thailand, 2011) More than anything, as great proud of the nation, his Majesty King Bhumibol Adulyadej was the first monarch in the world to be granted a patent in 1993 for his aerator design and subsequently for many more innovations such as royal rainmaking technology and Thai fragrant rice. (The Government Public Relations Department, 2011) He is praised as the father of Thai innovator and technology. (The Government Public Relations Department, 2011)

Nonetheless, Thai patent registration still has some deficiencies. For example, it struggles to balance private and public interests. Foreign pharmaceutical companies still have absolute rights in medicines which make prices incredibly high. (Euarchukiate, 2007) Only a small number of drugs have exceptions via uneven government policies.

II Innovations in Thailand

The Kingdom of Thailand is regarded as an amalgamation of an agricultural and industrial country. (UNESCO, 2011) It relies on exports of agricultural products such as rice and rubber as well as industrial products such as computer hardware parts and automobile parts. (Foreign Office of the Government Public Relations Department, 2011) Average income per capita is about USD 4,716 per year. (U.S. Department of State, 2011) Low income affects innovation as the prevailing concern is on basic livelihood. Only a small group of people is empowered to undertake research and development leading to innovate technologies. Generally, these people are educated and granted funds from the government or private sector. As a consequence, centers for research and development for innovations are few, mostly consisting of research units in academic and government institutions along with private entrepreneurs. Generally, the private sector invests in Thailand by creating research and development centers to develop patent-protected manufacturing innovations.

For example, Honda Motor Co. sought to open an automobile research and development center in Thailand in 2007 to serve the demand of the world market. (Kyodo News International, 2005) Honda R&D Asia Pacific Co., Ltd. was officially launched in rural area of Bangkok in 2009 to strengthen Honda's competitiveness in Asia and Oceania region. (Newsroom, 2009) It aims to develop a variety of fuel-efficient vehicles as well as to promote technology transfer and skills development labours in the country. (Newsroom, 2009) Mazda and Ford also teamed up to invest USD 350 billion to research and develop new pick-up trucks in Thailand. (Nation Multimedia, 2010)

The Ministry of Science and Technology is the main organ for the research and development in Thailand. It has many agencies working on different specializations. (Ministry of Science and Technology, 2010) For example, the Ministry of Science and Technology launched the National Innovation Agency in 2003 to promote the development and commercialization of high value-added biotechnological products. (The National Innovation Agency, 2008) It previously established the National Science and Technology Development Agency as a broad approach to science and technological development in support of national economic and social policies in 1991. (The National Science and Technology Development Agency, 2011)

These agencies rely on financial support from the Ministry of Science and Technology, but sometimes the budget is lacking. As a result, the agency needs to find more financing from the public and private sector domestically and internationally. Frankly stated, funding is a crucial factor in promoting fruitful research. Thailand is a developing country that still faces a problem in adequately financing innovation on a national level.

In the past, innovations and technology in Thailand usually involved agricultural products disclosed to the public freely for social benefit. Innovators normally do not want to produce the innovations for profit, a result from the notion in Buddhism that no one should expect a return from good deeds. Other reasons include a lack of expertise regarding intellectual property and strategic technological development. However, with societal and economical changes, the notions and behavior of Thai people are now different. There are greater numbers of Thai innovators who eager to register for patents, with patent applications were filed as 10,339, 10,561, 9,730 and 5,539 applications in 2007, 2008, 2009 and 2010 respectively. (*Statistics Patent/Petty Patent (in Thai)*, DIP, 2010) Thai entrepreneur and applicants filed approximately 4,000 applications each year from 2007 to 2010; the rest were patent applications by foreigners. The great number of patent application can translate that innovations and technology in Thailand are increasingly developed.

Depending on the viability of its procedures and personnel, a patent registration system can either improve or impede the advance of innovations and technology. Generally, patent registration system is a positive indicator of innovation and technological development. (S+M Magazine, 2011) Therefore patent registration system problems including lengthy registration periods, non-standardized applications and insufficient enforcement should be diminished.

III Patent registration in Thailand and its problems

It has been almost two decades that the Thai patent registration system has been in existence following the enactment of the Thai Patent Act. The registration system has developed gradually from international cooperation including agreements and treaties. For example, the Department of Intellectual Protection (DIP) received much help from

the World Intellectual Property Organization (WIPO) (*Promotion of Innovation through Effective Cooperation on Patent Examination*, WIPO, 2010) since Thailand became a member country of WIPO Convention in 1989. (*Contracting Parties*, WIPO, 2011)

A. Patent registration system

In 1992, the Ministry of Commerce established the DIP, which is responsible for managing patent registration. (*History of the Department of Intellectual Property*, DIP, 2010) Anyone wishing to apply for a patent in Thailand has to file an application for his or her innovation or process with the DIP. There are two types of patents: patents and petty patents. Their requirements are slightly different. A patent requires novelty, an inventive step, and being capable of industrial application while a petty patent lacks the inventive step requirement. (Hemarachata, 2001, pp. 140-141) Patents are also categorized into two types: Design and Invention.

The system of first to file is used for conferring exclusive rights from the first filing or priority date. Only the true innovator can apply for a patent. The exception goes to employers or government organizations, who hire innovators to research, invent or design; a clause specifying these conditions must be written in the employment contract. (Hemarachata, 2001, pp. 149-152) In brief, the applicants need to search for prior arts before applying for patents to see whether their innovations are new, and then submit their applications together with other compulsory official forms. (Mungkarndee, 2011)

After submitting a patent application, examiners will assess whether the submissions are complete and the innovations are patentable. If the submissions are complete, the DIP will publish the application for opposition by third parties. (Nagadatta & Doyle Ltd., 2011) If there is no opposition, the applications will be examined by examiners. The whole process of patent registration is approximately four to five years. (Nagadatta & Doyle Ltd., 2011) The DIP can reject an application anytime if officers and examiners are not satisfied with any process or document. Accordingly, after granting a patent, a patentee will have an absolute right in the innovation for twenty years in the case of an invention patent and fifteen years in the case of a design patent. If there is any infringement, a dispute can be brought to the Intellectual Property and International Trade Court (IP&IT Court).

A. Problems in the Patent Registration System

Despite the great numbers of patent applications as mentioned above, from 2007 through 2010, the DIP's Patent Office has not been able to register more than 2,185 patents, as it did in 2008. It was only average of 2030.75 patents from 2007 through 2010. (*Statistics Patent/Petty Patent (in Thai)*, DIP, 2011) The sluggish patent registration system may largely be due to insufficient numbers of patent examiners. Experienced examiners are rare and hard to find. As mentioned by Dr. Jairak Euarchukiate, a legal consultant of National Science and Technology Development Agency (a telephone interview, November 18, 2008), recruiting new officers does not

help much since considering patent applications requires specialization. The dearth of insufficiently expert examiners, along with other problems can arise in every step of patent registration procedure. These problems tend to fall in three categories: before the application is submitted, during the registration process, and in the enforcement period after the grant of patent.

a. Before filing patent application

The first problem is that applicants lack information on application procedures and how to draft the patent application. Most do not know the official forms to use, submittal requirements, how to search for prior arts, or how to make full disclosure of the innovations. As DIP officers will examine for the completeness of the application submitted, if any document is absent, the applications will be rejected immediately. However, if the applications manage to proceed to the examination process, they can be rejected because of lack of novelty, inventive step or industrial applicability.

The second problem involves determining who the true innovator is. The law allows only true innovators to file applications for patents, yet assessing genuine innovators is challenging as there is no standard in law to identify them. The third problem involves patent agents. If agents lack of experience or have insufficient knowledge about technology and innovation, the applications can be rejected outright due to unclear descriptions or incomplete disclosure of the innovation, rather than being returned to the applicant for modification.

b. During patent registration procedure

First of all, the patent examination process in Thailand is very lengthy. Secondly, examiners have problems interpreting the law. For example, in Section 28 of the Patent Act, if examiners find that the application's innovation is insufficiently disclosed, a request will be made to the Director General to reject the applications. However, it is very hard to determine what constitutes insufficient disclosure. Moreover, if a patent covering the same innovation has already been granted, it is unclear whether Section 28 provides a ground for revocation. (Kuanpoth, 2002) Thirdly, the DIP uses the pre-grant opposition procedure to give a chance to third parties to participate with the examination process after the applications are published. The system can prolong the already lengthy duration until the grant of patent. Fourthly, the DIP does not have sufficient resources to search for prior arts. Although it has database search contracts with other patent offices such as Japan Patent Office and the WIPO, these do not cover the entirety of patents worldwide, and some patent offices in the world are not ready to provide an access to their databases.

Fifthly, DIP examiners number a mere 40 persons, as claimed by Khun Manasnan, public relations officer of the Department of Intellectual Property (telephone interview, July 5, 2011). This includes new examiners that have just successfully passed the exam to become permanent government officers early in 2011. (DIP, 2011) The examiners are required to examine the application thoroughly from novelty to industrial

applicability. Sixthly, searching for novelty is also a problem because the definition of prior arts is unclear and different in each country. Plus, it is unknown which national or international standard Thailand will adopt. For example, tests used in many European countries preclude granting of patents if an innovation is widely known or used in a domestic area before the filing date, while under US patent law, patents will be granted to only innovations that have not been known or used in a domestic area and are not described in publications anywhere in the world. (Kuanpoth, 2002)

Seventhly, there is the problem of determining inventive step from skillful persons because the standard of skillful persons in Thailand is different from those of developed countries. Thailand seems to have a lower standard for skillful persons as there is an inadequate number of individuals skilled in complex technology. This creates a problem when Thai innovators apply for patents outside the kingdom and are rejected while at the same time receiving patents in Thailand. Eighthly, being capable of industrial applicability in Thailand must be defined in the broadest sense since the country also manufactures innovations in the realm of handicrafts, not just industry and agriculture.

c. Enforcement of Patents

If there is any patent infringement case, a patentee can bring the case directly to the IP&IT Court, which makes the enforcement of patents in Thailand very convenient. In addition, the number of patent cases brought to the court for civil procedure is on the average of one to ten cases per year and five to fifteen cases per year for criminal procedure. (Fougere and Kulajta, 2010) It has been claimed that the small numbers of patent cases result from the hesitancy to grant search warrants for patent infringement matters by the court. (Fougere and Kulajta, 2010) This was admitted as true by the court, as it deemed that civil action should be taken more than criminal action. (Tilleke & Gibbins International Ltd., 2010)

Nevertheless, although patent law gives patentees absolute right up to twenty years and can lead to monopolization, infringers in Thailand or competitors of patentees still find it hard to follow innovative step of the patentees especially those in developed countries because Thailand still struggles with being fully capable of industrial production involving advanced technology. Patent lawsuits brought to the special court are under control since the court is managing the cases effectively, with pending cases decreasing every year. (IP&IT Court, 2011)

IV Proposals for Thai Patent Registration Problems

Patent registration problems in Thailand are caused by various factors and obstruct the efficient use of patents. For instance, flaws in the examination process can result in lengthy lawsuits which waste both money and time. (See *Jaguar Industry (Thailand) Limited v. Nattinee Euarwiput*, the Supreme Court decision no. 2906/2552 [2009]) To minimize risks in the registration process, there should be national strategies and solutions proposed.

A. Patent strategies

Firstly, a fair system balancing private and public interest should be promoted by publishing innovations after the patent has expired as well as reward innovators with exclusive rights for limited period. Although patents have the capability to restrict competition and detract from a fair economy, at least the monopolization from granting patents can induce encouragement of innovators and global development of Science to disclose innovations. Secondly, Thailand should also control the quality of patents because low patent quality has spillover effects on the economy and society. The control of patent quality does not slower the examination procedure but it will make the examination of patent applications by sufficient numbers of efficient and expertise examiners better with quality control.

Thirdly, the promotion of research and development for new innovations in Thailand should also be strengthened because the country needs high technological innovations to follow the standard of other countries, especially developed countries. The patent registration process will encounter fewer problems as a consequence. For example, the lack of persons skilled at determining inventive steps will be remedied if Thailand can approach the level of technology as high as that in the US. (Lawdit reading room, 2009) Fourthly, there should be more promotion of participation between Thai patent offices and other patent offices around the world to share databases of prior arts for the benefit of Thai patent applicants and examiners. Fifthly, to develop examiners and increase their ability in examining patent applications, examiners should undergo more training including observation of other countries' patent offices.

Sixthly, although Thai patent law was already legislated in accordance with international treaties and the demands of developed countries, drafters of the amended or new patent law should not forget that Thailand is still a developing country with lesser technological and, research and development resources to spur new innovations than developed countries. To design a new law, which has the same standard with developed countries, can only harm the patent system in Thailand because the country will continue to struggle to meet those high standards. Therefore, without violation of the Free Trade Agreements and international treaties, the law should not be drafted too strictly and give too much benefit to patents from other countries. The law should also increases exceptions of patents for public interest. (Section 36, Thai Patent Act B.E. 2522)

B. Possible solutions to the problems

Patent registration problems can arise even after the registration of patent. (See for example *Chidlom Marine Services and Supplys Co. Ltd. V. Somchai Jitpinijyol*, the Supreme Court decision no. 7119/2552 [2009]) Therefore, to recap, solutions to the problems should be divided according to process of patent registration: before submission of the patent application, during the patent registration procedure, and once the enforcement of the patent has begun.

a. Before submission of patent application

To address patent application problems, the DIP has recently been offering patent application instructions on its website and frequently holds seminars, symposiums, learning center sessions (Intellectual Property Training Center, 2011) and other activities to educate innovators. (http://www.ipthailand.go.th/ipthailand/index.php?option=com_content&task=category§ionid=17&id=109&Itemid=188, 2011) It has a patent search option on its website permitting search for prior arts in cooperation with many patent databases such as the Japan Patent Office and the World Intellectual Property Office. (*Patent Search System*, DIP, 2011) The DIP has even setup a forum on its website to serve as a platform for discussion and questions about general IP problems including the patent application process. (*Discussion Forum*, DIP, 2011) The attempts of the DIP to promote and solve IP problems are well acknowledged, and it has tried its best to create a useful website. The DIP's current policies and services are very good but need further promotion throughout the country to educate the public about how to write a patent application or search for prior arts, with a special focus on reaching universities and research centers. The DIP should also offer a certification course for patent agents. These steps will greatly reduce the amount of bad applications which delay the registration process even for excellently composed and novel applications.

b. During patent registration procedure

The DIP's solutions at the moment are to work with other patent offices as much as possible to increase resources for the search for prior arts and to liaise with academic institutions in Thailand to speed up patent searches. (Prince of Songkla University, 2006) This is very good policy of DIP that it should continue. However, patent law should be rewritten to be clearer and give definition to terms such as "sufficient disclosure". (EQE-Students, 2010) Accordingly, DIP should recruit more efficient examiners and require them to extend their knowledge of other fields of science beyond their field of expertise. Well-rounded experts can help to reduce the problem of insufficient examiners and hasten the patent registration process. The amended version of the Patent Act should also be written more clearly. The industrial applicability requirement in Section 8 of the Patent Act should be specified more fields of industry to best suit Thai society and economy. (Section 8, Thai Patent Act B.E. 2522)

c. Enforcement of the Patent

The suppression of goods infringing intellectual property rights especially at Thai border, are performed by DIP in cooperation with the Royal Thai Police, the Customs Department and the Department of Special Investigation (DSI). (*Thailand's Implementation on Intellectual Property Rights*, DIP, 2010) According to the report on the suppression of patent infringement by DIP (*Statistics on Suppression of Intellectual Property Rights violation*, DIP, 2008), there were no more than five cases each year under which individuals were arrested for violations under the Patent Act. The report

showed that there were 16 (Attasart and Chinsriwonggool, 2003, pp. 414-427), 3, 4, and 4 cases of the patent violation seizure in 2002, 2005, 2006, and 2007 respectively. (*Statistics on Suppression of Intellectual Property Rights violation*, DIP, 2008) The number of patent violators arrested by DSI and the police are actually decreasing. The enforcement by seizure of patent-infringing products, therefore, is not too difficult for Thailand. The cooperation between DIP and police departments seems to be going well and can control the violation. Relevant authorities should continue the practice as it can truly attack the problem of such infringing goods.

As for the enforcement measures under judicial process, a patent owner has the right to prosecute infringers under both civil and criminal law. (Attasart and Chinsriwonggool, 2003, p. 424 and *Enlist of passed patent examiners as official government officers*, DIP, 2011) The owner can file a lawsuit for wrongful infringement allegations according to the Civil Code (Attasart and Chinsriwonggool, 2003, p. 415) or choose to prosecute the infringers with criminal penalties in accordance with Offences Chapter in the PA to the Central Court of Intellectual Property and International Trade. As mentioned, each year there are no more than twenty patent cases brought to the court for civil action and ten patent cases for criminal action. (*Statistics of cases*, IP&IT Court, 2011) Although small problems about search warrants exist (Tilleke & Gibbins International Ltd., 2010), patent enforcement through judicial procedures is under control. The problems are in the hands of the special court and experienced judges. Related authorities such as law firms and DIP are gathering to find out the solutions for current problems.

V Conclusion

As shown above, patent registration problems can block innovation and technological development in Thailand, especially if the registration system is not smooth and is drawn out by poor quality applications. Problems with patent registration in Thailand deserve the concern of everyone. As Thailand lacks advanced technology along with robust research and development, promoting scientific and technological development is critical, not only to improve the patent system, but also to help the economy and society given how patents have a broad effect on everything, especially competition. Education is also an essential element in reducing problems related to the patent system. Although Thailand is still a developing country with unstable politics, improving the climate of innovation and the patent registration system can be done if good strategies are laid down with aid from developed countries. This way, genuine globalization will not be out of reach.

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