ERIA PROJECT REPORT FY2013 NO.16

REFORMING THE INTELLECTUAL PROPERTY SYSTEM TO PROMOTE FOREIGN DIRECT INVESTMENT IN ASEAN

Economic Research Institute for ASEAN and East Asia

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List of Abbreviations

AMS	ASEAN member state
ASEAN	Association of South East Asian Nations
ASPEC	ASEAN Patent Examination Cooperation
PPH	Patent Prosecution Highway
EU	European Union
FDI	foreign direct investment
GDP	gross domestic product
GNP	gross national product
IPR	intellectual property rights
MNC	multinational company
R&D	research and development
TRIPS	The Agreement on Trade-Related Aspects of Intellectual Property Rights
US	United States
USPTO	United States Patent and Trademark Office

List of Working Group Members

To conduct the survey, we built a working group. It was composed of 10 members from 7 countries: Japan, China, Korea, Singapore, Thailand, Indonesia, and Viet Nam.

Working Group Core Members

Country	Name	Position and Organisation
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	Toshiya Watanabe	Professor, Policy Alternative Research Institute, The University of Tokyo
	Isamu Yamauchi	Fellow, Research Institute of Economy, Trade and Industry (RIETI)
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China	Li Mingde	Professor and Director of the Intellectual Property Center, Chinese Academy of Social Science
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Indonesia	Miranda Risang Ayu Palar	Lecturer of the Faculty of Law, Intellectual Property Management Centre (IP Office), Universitas Padjadjaran
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Working Group Assistant Research Members

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Executive Summary

1. Purpose of the study and research method

Purpose of the study

The purpose of this study is to establish what is the present situation regarding intellectual property (IP) systems in the Association of Southeast Asian Nations (ASEAN) countries and to derive political recommendations for their improvement and renewal with a view to promoting foreign direct investment (FDI) by multinational corporations (MNCs).

Research method

To achieve this purpose, we conducted two types of survey—a questionnaire survey and an interview survey—from March to June 2014.

Our questionnaire sheet included the following items:

1) The present state of and plans for direct investment in ASEAN countries;
2) Profile of subsidiary in ASEAN countries (operating country in ASEAN, year of establishment, type of activity, sales volume, number of employees, etc.);
3) Factors that were given importance in determining (or planning) direct investment in ASEAN countries;
4) Particulars of the above IP elements given importance in determining (or planning) direct investment in ASEAN countries;
5) Problems faced after expanding into ASEAN countries;
6) Involvement of IP divisions in the decision-making on FDI;
7) Expectations regarding sound and satisfactory IP systems and policies in the ASEAN countries.

We sent the questionnaire to Japanese (JP), Chinese (CN), Korean (KR), American (US), and European (EU) MNCs. We assigned the manager of the intellectual property division and, as necessary, the manager of the international business division and/or corporate planning division as the responding persons.

Once the completed surveys had been returned to us, we conducted interview surveys with the companies that had responded to the questionnaire, in which we asked them about the reasons for their answers and for any comments on the actual situations and problems of IP systems in ASEAN countries. Most of the interviewees were the managers of the IP-related division of the company, whom we interviewed for about 1.5 to 2 hours in most cases.

Selection of target companies

We selected JP, CN, KR, US, and EU companies that have already established local subsidiaries in ASEAN countries. Considering the potential impact on future economic growth in ASEAN, in choosing our target companies we focused on those in four economic sectors: electric devices, transportation machines, chemicals, and food.

Working group members and their role

We formed a working group consisting of members from Japan, China, Korea, Singapore, Thailand, Indonesia, and Viet Nam. The number of core members was 10 in total: 4 from Japan and 1 from each of the other countries. Some assistant researchers also joined to the group.

Japanese, Chinese, and Korean members conducted the surveys with the Japanese, Chinese, and Korean companies, respectively. Members from Singapore, Thailand, Indonesia, and Viet Nam conducted the surveys with American and European companies' subsidiaries, which were located in the group members' home countries.

Respondent companies and their composition

For the questionnaire survey, we asked JP, CN and KR companies to provide answers about two different local subsidiaries in ASEAN countries if possible. The US and EU companies answered for a selected local subsidiary located in each country.

As a result, we collected responses from about a total of 95 subsidiaries—31 subsidiaries of 16 JP companies, 11 subsidiaries of 8 CN companies, and 17 subsidiaries of 10 KR companies. As for the subsidiaries reported on by the US and EU companies, 12 were located in Indonesia, 7 in Singapore, 7 in Thailand, and 10 in Viet Nam.

Dividing our sample into Asian (JP/CN/KR) companies and Western (US/EU) companies, 58 subsidiaries were established by Asian companies and 33 by Western companies.

2. Results of the research

Conducting the questionnaire and interview surveys of MNCs resulted in important findings that provided an indication of the problems and challenges of IP policies and systems in ASEAN countries to be tackled:.

General factors determining foreign direct investment in ASEAN countries

(1) *IP-related issues are not usually critical factors before expanding to ASEAN countries, but they are perceived as major problems after expansion*

Although US and EU MNCs are more concerned about IP-related issues before establishing a new subsidiary in ASEAN than JP, CN, and KR companies, the major factors considered by MNCs were economy-related and market-related—"Size and growth rate of GDP", "Wage level (labour cost)", and "Size and growth rate of the relevant market"—whereas IP-related issues such as "Level of legal development concerning intellectual property rights" and "Level of implementation and enforcement of intellectual property law" were less considered before expansion. However, after establishing a new subsidiary there, they were perceived as major problems. This suggests that many MNCs have experienced some problems concerning their IP rights and the IP-related systems in ASEAN countries. Indeed, according to the interviews, the managers of some MNCs reported they were suffering from many IP problems, including counterfeit products and excessively long examination periods to obtain IPR, and this situation hinders further expansion of their business to ASEAN countries. Such problems related to IP systems are likely to increase withdrawals of existing subsidiaries from ASEAN countries. Therefore, a possible implication from this finding is that appropriate IP systems may not always be very effective in terms of increasing investment, but may be effective in sustaining investment in ASEAN countries.

(2) *Of all MNCs, US and EU companies showed a tendency to pay greater attention to IP-related issues before expanding to ASEAN countries*

IP systems do play some part in attracting investment from MNCs. Our survey data shows that in 32 percent of all the MNCs examined in this study, the IP department was highly involved in decisions on expansion to ASEAN countries. Indeed, for 55 percent of

US and EU companies, the IP divisions were highly involved. The interview data also suggest that direct investment in ASEAN countries is affected not only by economic and market factors, but to some extent also by IP issues as well. Developing effective IP systems could induce US and EU companies in particular to increase their direct investment in ASEAN countries.

IP-related factors affecting direct investment in ASEAN countries

(1) *Major aspects of IP related factors considered before and after expansion into ASEAN countries are "trademark", "trade secret", and "patent"*

When focusing on IP and IP-related issues, we found that the major aspects considered before and after establishing a new subsidiary in ASEAN countries were trademark, trade secret, and patent. Of those, trademark-related issues were of the highest concern to the companies surveyed, before and after expansion to ASEAN countries. Trade secret and patent-related issues were given much attention apart from trademark, before and after establishing local subsidiaries. This applied nearly equally to JP/CN/KR companies and US/EU companies, although US/EU companies accorded relatively high importance to patent protection, especially before expansion. These results could be indicative of the high concern about counterfeit goods among sales-based companies, and about technology drain among both production-based and R&D-based companies. With regard to trade secret, our analysis revealed that the present situation of insufficient protection might lead to reshoring, or withdrawal, of MNC subsidiaries established in ASEAN countries.

(2) *Cost of obtaining IP rights and examination timeline are the most common and of highest concern in trademark, patent and design related issues, especially before expansion to ASEAN countries*

The cost of obtaining IP rights was one of the biggest concerns in trademark, patent, and design related issues before expansion for the companies surveyed. US and EU companies were also concerned about the maintenance fee of trademark and patent rights before establishment of subsidiaries. According to the results of our questionnaire and interview survey, the cost of obtaining IP rights in ASEAN countries is regarded as too high. The costs involved are not just the payment to the patent office, but also fees for local attorneys and for translation into local languages. Consequently, the total cost of the process in ASEAN countries can sometimes be much higher than the cost incurred in the home countries of MNCs. Our interviews with Japanese companies revealed that to them

the acceptable cost is, on average, nearly 60 percent of the actual cost. In one ASEAN country, the actual cost is about twice as high as the acceptable cost, and in another country the actual cost is five times as high as the acceptable cost, according to one of the interviewees.

Apart from the issue of high cost, excessively long prosecution timelines of patent, trademark and design patent was a serious concern for most MNCs surveyed before and after expansion to ASEAN countries. According to the interview survey in Japan, the acceptable duration is 12 months, but in one ASEAN country the actual timeline exceeds 48 months.

(3) *Injunctions and damages in trademark and patent are other important factors considered before and after expansion to ASEAN countries*

Regarding trademark and patent, injunctions and damages were of high concern among companies surveyed, before and after establishment. For trademark in particular, they were the biggest concerns after expansion to ASEAN countries. Even if all the relevant laws and regulations are in place, implementation and law enforcement in ASEAN countries are often lacking or ineffective. Most MNCs were of the opinion that the impact of counterfeit products is serious and that it is necessary for them to be eliminated by protecting IPR. Trademarks of consumer products in particular are likely to be infringed in many countries, so injunctions and damages were also recognised as important problems after establishment.

(4) *Harmonisation of IP examination systems is important for most MNCs when considering direct investment in ASEAN countries*

MNCs suggested that the harmonisation of IP examination systems is very important to them. For example, regarding trademark, among ASEAN countries only four countries are members of the Madrid Protocol. This means that, although they can make use of the Madrid Protocol to apply for trademark registration in those countries that are members, they must apply separately in other ASEAN countries. So for MNCs it is desirable that ASEAN countries harmonise their trademark registration system through adherence to the Madrid Protocol. Similarly for design protection, only two ASEAN countries are members of the Hague Agreement Concerning the International Registration of Industrial Designs.

(5) *Developing and improving IP-related systems, such as import and export control of counterfeit goods, a transparent and predictable tax system on transfer pricing, control of licence contracts, and export controls on technology transfer, are other issues considered by US and EU MNCs before expansion to ASEAN countries*

In addition to the issues described above, US and EU MNCs surveyed were highly concerned about other IP-related issues, such as inadequate import and export controls of counterfeit goods, lack of a transparent and predictable tax system on transfer pricing, lack of control of licence contracts, and inadequate export controls on technology transfer. Although JP, CN, and KR companies did not attach much importance to these particular matters, development and improvement of these aspects could be expected to boost FDI.

(6) *Lack of a well-structured IP-related information system is a critical factor of great concern to most MNCs*

One of the common problems for MNCs that have expanded to ASEAN countries is the difficulty of obtaining sufficient information on IP and IP systems in those countries. Many MNCs complained, for example, that the standard of IPR examination, the procedure of IP rights examination, and the current status of specific IPR that have been applied for, are unclear. They are expecting that IP offices in ASEAN countries establish a well-structured information system and open it for public use. Availability of this information in English is strongly desired by most companies surveyed.

Problems and challenges of IP systems in each ASEAN country

Although it is difficult to induce clear features of the IP systems in each of the ASEAN countries due to the limited number of samples in our study, we have a certain level of information about the situation and problems of some key countries. Below are some brief sketches of each of those countries.

(1) Singapore

Our study results suggest there is no major problem with the IP system in Singapore. The relatively large number of IPR specialists in Singapore compared with other ASEAN countries is attractive to companies considering direct investment and the overall IP system in Singapore is well constituted and meets international standards. Recently, Singapore has been attracting companies for R&D activities because it has a good supply of high-level, talented researchers and engineers. Probably because of this, the employer's

duty in employee's invention is considered more highly than in other countries. Because of the small size of the Singapore market, however, many companies have no incentives to file their patents rights in Singapore. Nevertheless, if Singapore can take the leadership in establishing a harmonised IP system within other ASEAN countries, MNCs would be very keen to establish their Asian base in Singapore. In this sense, Singapore has the potential to become ASEAN's IP hub.

(2) Thailand

Regarding patent and trademark-specific issues, the high cost and the excessively long and complicated timeline for obtaining IP rights are of a higher concern in Thailand than in other ASEAN countries. Some of the MNCs interviewed complained about examination durations of more than 10 years and the higher costs, including fees for local agents and translation into local language. Patent injunction and patent damages are also issues of higher concern in Thailand than in other ASEAN countries. Improvement of the IP system, examination capability in particular, is strongly desired to attract further sustainable direct investment in Thailand, as are greater efforts towards harmonisation such as becoming a member of the Madrid Protocol.

(3) Indonesia

Law enforcement and timeline for registration of IPRs were some of the most frequently mentioned problems by MNCs surveyed regarding the IP situation in Indonesia. It is clear that solving these problems are likely to encourage MNCs to expand their business in the country. Enhancement of IP information system and enforcement are the key areas that could support enhancement of Indonesia's IP system according to the survey respondents. Moreover, the trade secret protection system was of greater concern to the companies surveyed than in other ASEAN countries. Greater harmonisation efforts, like becoming a member of the Madrid Protocol, was also strongly desired by survey respondents.

(4) Viet Nam

The issues of concern tend to be similar to those in the other ASEAN countries, but for some of the MNCs surveyed, the IP system and level of enforcement in Viet Nam are of a relatively high standard.

3. Recommendations

From those findings, the following recommendations for improvements in and renewal of the IP systems and policies in ASEAN countries were derived:

(1) Improve the level of legal development of IP rights and the level of implementation and enforcement of IP laws

Reliable IP law and its effective implementation and enforcement are the foundation for promoting FDI in ASEAN countries. Inconsistencies between them causes serious problems for the business operations of the companies that have expanded to the region. For instance, failing to eliminate counterfeit goods from the market can destroy companies' business. Criminal sanctions and civil sanctions are effective ways to prevent wilful counterfeiting. Customs controls should be the front line to prevent such infringing goods from entering the ASEAN market. To establish such effective enforcement systems, each country and ASEAN authorities need a special organisation with skilled professionals. Policymakers should pay much more attention to this issue to improve the situation. At the same time, governments of advanced countries should support the improvement in the level of legal development of IP rights and in their implementation and enforcement in ASEAN.

(2) Establish a well-structured and user-friendly information system and services for searching IP rights and referring IP-related procedures, etc.

Insufficient information about IP rights and IP systems and procedures not only increases the cost and time it takes for companies to apply for and obtain IP rights, it also leads to mistrust by companies that have established subsidiaries or are planning to establish subsidiaries in ASEAN. Information about existing IP rights, the standard of the IP rights examination, the examination procedure, the current status of specific applications, and so, on should be provided at low cost and should be easy to use. IP offices in ASEAN countries should establish well-structured and user-friendly information systems and governments of advanced countries should support the establishment of a reliable IP information providing system in ASEAN.

(3) Construct a more harmonised IP system in ASEAN

The present IP system in ASEAN is highly diverse as there are considerable differences in terms of the maturity of the systems between ASEAN countries. It seems unrealistic, therefore, to unify all of the IP systems in ASEAN. But ASEAN countries should regard the harmonisation issue as an opportunity to better understand each other and solve problems together. A solution for the harmonisation issue is expected to be the outcome of those discussions.

The first recommendation is to join some of the important international treaties, such as the Madrid Protocol and the Hague Agreement Concerning the International Registration of Industrial Designs. The second recommendation is to build on the ASEAN Patent Examination Co-operation (ASPEC), which is the first regional patent work-sharing program among nine ASEAN countries. The third recommendation is that the patent offices in ASEAN countries should learn from the patent examination information highway created by three offices (US, EU, and Japan), or by five offices (those three plus Korea and China) to study access channels of examination harmonisation and to further enhance examination.

(4) Leverage IP system to foster innovation in the ASEAN region

ASEAN countries are expected to grow their economics through strong innovation policies like Japan, Korea, and recently China have done in recent decades, adapting and growing their economies. From their experiences, the first key issue in this regard is how to develop a high-quality manufacturing industry. Patent, utility model, and trade secret are relatively more important than other IP rights to attract manufacturing companies. Strengthening the protection of these IP rights in ASEAN countries should contribute to the promotion of domestic technological capabilities as well as induce direct investment from advanced countries. Accordingly, we recommend that ASEAN governments closely cooperate with US, EU, JP, CN, and KR companies to promote their domestic technologies, which will eventually require stronger IP protection both for domestic and foreign companies. The second important issue is how to attract R&D sectors. Innovation needs R&D activity in local regions. Except in Singapore, there are not so many MNCs that are conducting R&D in ASEAN. The employee invention system and improvement of export and import regulation of IP rights transfer are expected to promote R&D activity in ASEAN countries and attract foreign resources for building a strong local innovation system.

(5) Enhance the knowledge and awareness of IP rights from a long-term perspective

The results of our survey show that the lack of a reliable IP system is caused in part by a lack of knowledge about IP of local staffs. Professional human resource development by governments is highly needed. We recommend that ASEAN governments provide appropriate education and training for legal professionals responsible for IP. Although education and increasing awareness about IP rights and IP systems are important to solve the current problems, it would take considerable time for such efforts to be effective. In that sense, short-term and temporary action may not be effective. ASEAN governments should increase public awareness continuously through education with a long-term perspective. Advanced countries should support the building such education programmes through modification of their already developed education tools to fit the situation in ASEAN.

Part I

Research Setting

CHAPTER 1

Purpose of the Study and Research Method

1. Background of the Study

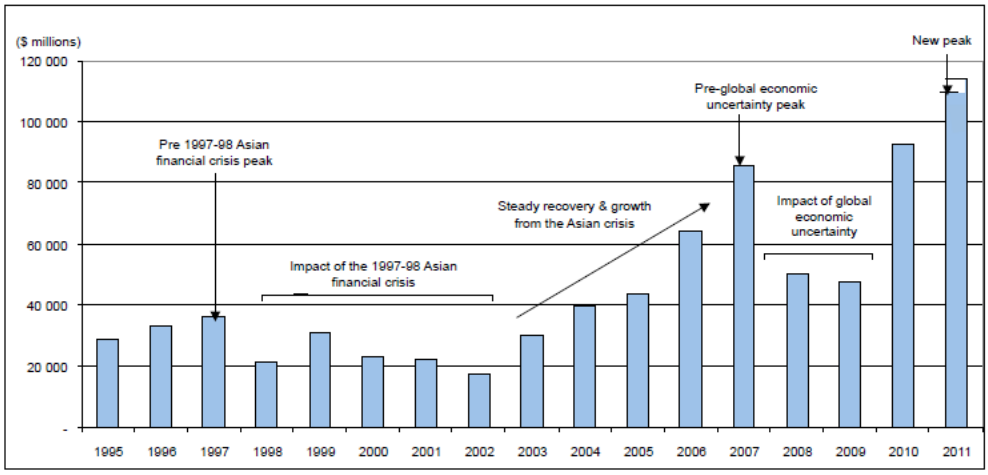
The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967. One of the goals of ASEAN is to accelerate regional economic growth. For that purpose, ASEAN member states are to promote collaboration on matters of common interest in the economic, social, cultural, technical, scientific, and administrative fields. At the Ninth ASEAN Summit held in 2003, ASEAN leaders agreed to establish an ASEAN community. Four years later they signed the Cebu Declaration on the Acceleration of the Establishment of an ASEAN Community by 2015.

The reason the realisation of the goal of the establishment of an ASEAN community was reinforced may be related to the rapid growth of the ASEAN economy. On 24 January 2014, OECD Secretary-General Angel Gurría delivered a speech entitled ‘Countdown 2015: Towards Inclusive and Sustainable Growth in the Association of Southeast Asian Nations (ASEAN) Economic Community’ at Davos, Switzerland. In his speech, he pointed out the following:

The ASEAN Economic Community has achieved impressive economic growth over the past several years. Southeast Asia has been one of the most dynamic and fastest-growing regions in the world, with GDP growth rates projected to average 5.4 percent per annum between 2014 and 2018.

This paper does not offer an explanation of the so-called ‘the East Asian Miracle’. But as can be seen in Figure 1-1 below, foreign direct investment (FDI) in ASEAN showed a significant increasing trend from 2003, which was in accordance with rapid economic growth in ASEAN.

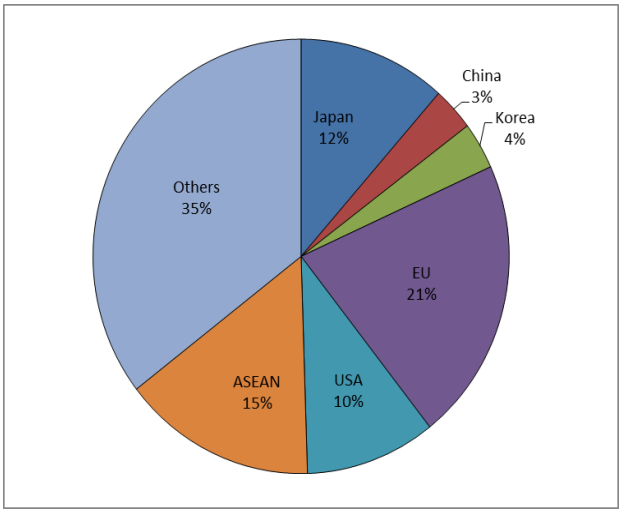
Figure 1.1: Net Foreign Direct Investment Inflows in ASEAN



Source: Reproduced from *ASEAN Investment Report 2012*, The ASEAN Secretariat.

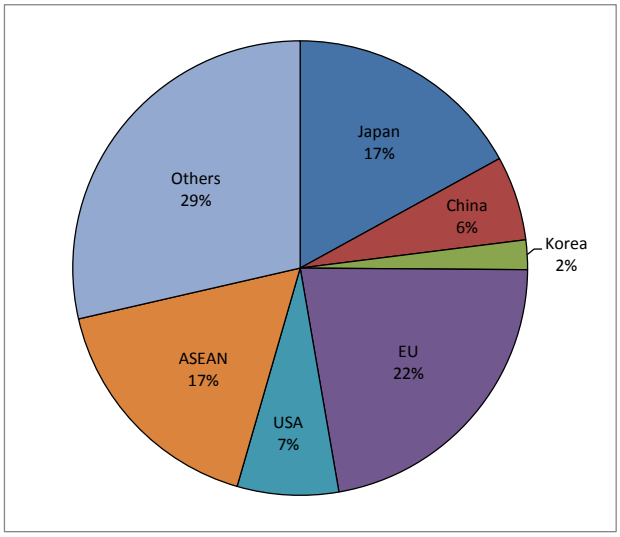
The share of Japan, China, and Korea increased from 19 percent in 2007–2009 to 25 percent in 2011–2013. Hence, Japan, China, and Korea accounted for a quarter of total FDI in ASEAN in 2011–2013, making it easier to conclude that Northeast Asian countries (Japan, China, and Korea) will influence more FDI net inflows in ASEAN. Adding the share of the EU and the US amounts to an increase from 50 percent to 54 percent, accounting for over a half of total FDI in ASEAN.

Figure 1.2: Share of FDI Net Inflows in ASEAN (2007–2009)



Source: ASEAN Statistics.

Figure 1.3: Share of FDI Net Inflows in ASEAN (2011–2013)



Source: ASEAN Statistics.

The protection of intellectual property rights (IPR) has been a critical element of the business strategies of multinational companies. Studies that examined the relationship between FDI and the intellectual property (IP) system (or protection of IP) did not reach clear conclusions. Some studies found that the likelihood of the most advanced technologies being transferred rises with the development of stronger protection of IPR (Maskus, 1997).

Nicholson (2003) analysed the effects of IPR protection by studying US companies engaged in FDI or licensing. It showed that weak IPR protection lets foreign companies internalise the production process of a particular country.

Maskus (1998) argued that the lack of clear findings could be due to only rough measures of IPR protection being available. Not only IPR protection, but FDI too is influenced by various factors. According to the early studies of Mansfield (1994, 1995), concerns about the IPR system also depended on the purpose of an investment project. Concerns would be stronger in cases of establishing an R&D base than in cases of establishing a sales or distribution base. Despite the complexity of the relationship between IPR systems and FDI, it is worthwhile and necessary for policymakers, domestic companies, and multinational corporations (MNCs) to explore the current state of the relationship in a certain area.

2. Purpose of the Study

The purpose of this study is to establish the present situation regarding IP systems and to derive political recommendations for their renewal with a view to promoting foreign direct investment (FDI) in ASEAN countries by MNCs.

ASEAN countries are very attractive markets for MNCs because of the former's potential economic growth, while ASEAN countries are keen to promote the growth of investment by MNCs. But MNCs are concerned about the IP environment in ASEAN countries, such as the slow examination process, different design and trademark systems in every country of the region, and weak border measures. Reducing intra-regional disparities among ASEAN countries and enhancing the predictability of IP systems would result in FDI growth and sustainable economic growth of the ASEAN region. Therefore, to develop and refine IP systems in ASEAN is greatly important to both ASEAN countries and MNCs.

In this study, we explore the opportunities and challenges with regard to IP systems and policies in ASEAN countries through surveys of MNCs and a preliminary statistical analysis based on the survey results.

3. Research Method

We conducted two types of surveys—a questionnaire survey and an interview survey.

We prepared a questionnaire sheet, which included the following items:

(1) The present state of and plans for direct investment in ASEAN countries;
(2) Profile of subsidiary in ASEAN countries (operating country in ASEAN, year of establishment, type of activity, method of establishment, sales volume, number of employees, etc.);
(3) Factors considered important when deciding on (or planning) direct investment in ASEAN countries;
(4) Particulars of the above IP elements considered important when deciding on (or planning) direct investment in ASEAN countries;
(5) Problems faced after expanding to ASEAN countries;
(6) Involvement of IP divisions in decision-making regarding FDI;
(7) Expectations and hopes for proper and satisfactory IP systems and policies in ASEAN countries.

To establish a new foreign subsidiary, MNCs would normally consider a variety of factors, for example, size and growth rate of GDP, labour cost, quality of human capital, completeness and reliability of infrastructure, corporate tax rate, and country risks (political, religious stability, disaster, etc.) of the host country. Stability and reliability of IP policies and systems can also be critical factors. To identify the relative importance of IP elements in determining (or planning) direct investment, we asked about the factors that were considered important in the decision-making process concerning the establishment of a new foreign subsidiary in ASEAN countries.

Regarding the particulars of IP elements, we chose detailed items based on the Park indices mainly on patent rights, such as the Ginarte-Park index (1997), Park-Wagh index (2002), and Park-Lippoldt index (2005). They included examination time and cost, term of rights, injunction and damage, and other issues related to patent, trademark, design, utility model, and copyrights, respectively. They also included IP-related issues as the invalidity of grant-back clauses, the invalidity of NAP clauses, transparent and predictable tax system concerning transfer pricing, import and export control on counterfeit goods, trade secret and technology know-how protection system, and the level of protection. We asked which items were important, how important, and why in considering the establishment of new subsidiaries in ASEAN countries.

In addition to the questions on the factors considered in the decision-making process on foreign expansion, we asked the companies about the actual problems they faced after expansion. By asking these questions, we tried to clarify the gap between the significance of the factors before expansion and that after expansion.

The definition and meaning of the detailed items are explained in Chapter 2. Appendix 1 contains the questionnaire we used in the survey and Appendix 2 describes the relationship with the Park indexes on which our questionnaire is based.

We sent the questionnaire to Japanese, Chinese, Korean, and western (US and European) MNCs that have already expanded into ASEAN countries. We assigned the manager of the IP division and, as necessary, the manager of the international business division and/or corporate planning division as the responding persons. We subsequently conducted an interview survey with the companies that responded to the questionnaire. In the interviews which lasted for about one-and-a-half to two hours in most cases, we asked them to provide more details about their answers to the questionnaire and any comments on the actual situations and the problems of IP systems in ASEAN countries.

Most of the interviewees were the managers of the IP-related division of the company. The surveys were conducted from March to June 2014.

4. Selection of the Target Companies

As for the targets of the survey, we selected Japanese, Chinese, Korean, and western (US and European) companies that have already established local subsidiaries in ASEAN countries. To better assess the potential impact on the future economic growth in ASEAN, we picked target companies active in four industries—electric devices, transportation machines, chemicals, and food.

As previously described, we built a working group consisting of core members from Japan, China, Korea, Singapore, Thailand, Indonesia, and Viet Nam and assistant research members who conducted the surveys in each country. In Japan, China, and Korea, the survey was conducted with Japanese, Chinese, and Korean companies, respectively, whereas in Singapore, Thailand, Indonesia, and Viet Nam, it was done with subsidiaries of US and European companies in each country.

CHAPTER 2

Overview of the Research Items Examined

In this chapter, we clarify the definition and/or meaning of the detailed items with regard to IP-related systems examined in the survey. As shown in Appendix 1, the questionnaire contains various items, some of which we selected and clarified.

1. Intellectual Property Rights in General

Prosecution timeline	Prosecution timeline usually constitutes the term from the date of a submission of intellectual property rights (IPR) to registration of the IPR.
Co-ownership	(Licensing) Some laws and regulations prohibit the granting of a license under the IPR without the consent of co-owners. (Enforcement) Some laws and regulations prohibit legal action by a co-owned IPR without the consent of other co-owners.
Injunction	A court order requiring a person to carry out or halt a specific action. Court procedures to order an injunction vary by country. But mostly, it is an extraordinary remedy that courts use in special cases where preservation of the status quo or taking some specific action is required to prevent possible injustice.
Damage	A monetary compensation ordered by a court to offset losses caused by another's fault or negligence. Court procedures to order payment of damages vary by country.

2. Patent

Examination	IPR examination is a fundamental part of the IPR system. For better IPR examination, there are worldwide networks such as

	the ASEAN Patent Examination Co-operation (ASPEC) and Patent Prosecution Highway (PPH) on patent examination. The PPH is a programme that speeds up the examination process for corresponding applications filed in participating IP offices. ASPEC is the first regional patent work-sharing programme among some of the IP offices of ASEAN Member States (AMSs).
Home country application system	Some countries require inventions conceived in a particular country to be filed in that country first.
Secret patent system	New technologies related to national defence and economic stability of a country will be examined using a special procedure.
Compulsory licensing right	Some laws or regulations permit a government to allow someone to produce the patented product or process without the consent of the patent owner.

3. Trademark

Registration of a trademark for multiple classes of goods and services with a single application	Some laws and regulations require the filing of an application for the trademark for each class. It would cause unreasonable costs to applicants and make management of the trademark more complicated.
Cancellation of registered trademark not in use	Some countries regulate that the burden of proof be imposed on the requester of the trial that concerns cancellation of a registered trademark not in use. In some situations, the trademark is registered for not in use, but for preparation of business. Under such circumstances, attempting to prove whether the trademark has been used places a great burden on the requester.

4. Design Patent

Partial design system	A system that provides protection for the features of a particular creation. Adoption of a partial design system is designed to prohibit people from imitating only the characteristic features of others' designs to create their own.

5. Copyright

Employee works	According to the general rules of copyright law, the person who actually creates a work is the legally recognised author of that work. However, under certain conditions, the employers are recognised as the author legally. Software can be protected by copyright. Hence, how to establish the conditions for employee works is important in the software industry.
Scope of neighbouring rights protection	Neighbouring rights refer to the rights of the persons who do not create works, but play an important role in commercialising the works. Protection of neighbouring rights is important in the music and film industries.

6. Other IP-related Systems

Contract registration system	Some laws or regulations require the registration of a license agreement.
Rates control for license fee objects of license contracts	There are some laws or regulations on how to determine a royalty (such as an upper limit on the amount and rate) or on how to decide what the objects of a license contract are.
Invalidity of grant-back clauses (assignment-back, exclusive or non-exclusive grant-backs, reciprocity)	Some laws, regulations, or cases stipulate which party—the licensor or the licensee—owns the improved technologies. If they apply, it is not legally permitted to include any provisions for the licensee to assign back or grant back to the licensor the improved technologies.
Invalidity of NAP clauses	Some laws, regulations, or cases restrict contract parties to include certain kinds of clauses, such as:

	(1) The licensee shall not contest the validity of the licensed IPR; (2) The licensee shall not assert any of the licensee's IP again the licensor.
Licensor's warranty obligation	Some laws or regulations oblige the licensor to make a particular kind of warranty, such as a warranty with respect to the quality of the licensed IP, or a warranty for non-infringement of any third party's IPR.

Part II

Overall Analysis

CHAPTER 3

Overall Trend of Companies Investing in ASEAN

1. Sample and Sample Composition

For the questionnaire survey, we asked Chinese, Japanese, and Korean companies to provide answers regarding two different local subsidiaries in ASEAN countries, if possible. The US and European companies that agreed to participate provided responses for selected local subsidiaries located in Indonesia, Singapore, Thailand, or Viet Nam, resulting in a total of 95 responses. Out of 95 target subsidiaries, 31 subsidiaries were from 16 Japanese companies, 11 from 8 Chinese companies, and 17 from 10 Korean companies. As for the subsidiaries reported by the US and European companies, 12 were located in Indonesia, 7 in Singapore, 7 in Thailand, and 10 in Viet Nam.

Dividing our sample into the Asian (CN/JP/KR) companies and Western (US/EU) companies surveyed, 59 subsidiaries were established by Japanese (JP), Chinese (CN), and Korean (KR) companies and 36 were established by American (US) and European (EU) companies, as shown in Figure 3.1.

Figure 3.1: Sample Composition by Home Country (N=95)

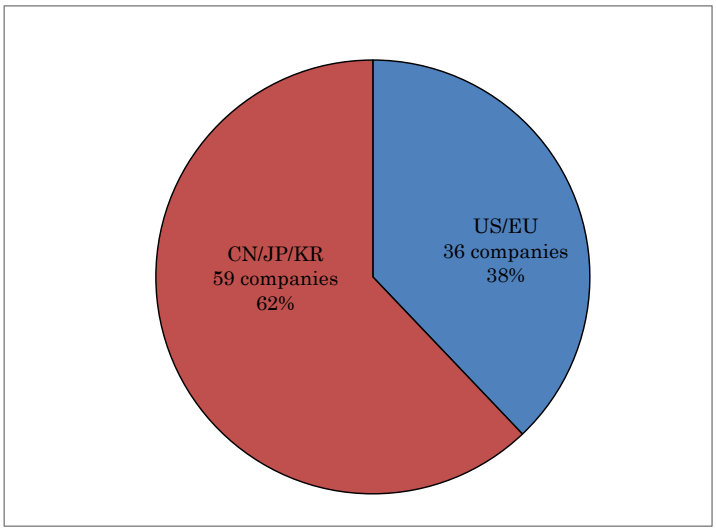


Figure 3.2 and Table 3.1 show the distribution of the subsidiaries over ASEAN countries, though the host countries of three subsidiaries are missing. In total, 29 percent of target companies (27 companies) established their subsidiaries in Indonesia, 26 percent (24 companies) in Thailand, 19 percent (17 companies) in Singapore, 16 percent (15 companies) in Viet Nam, 8 percent (8 companies) in Malaysia, and 1 percent (1 company) in the Philippines.

Figure 3.2: Distribution of Local Subsidiaries by Host Country (N=92)

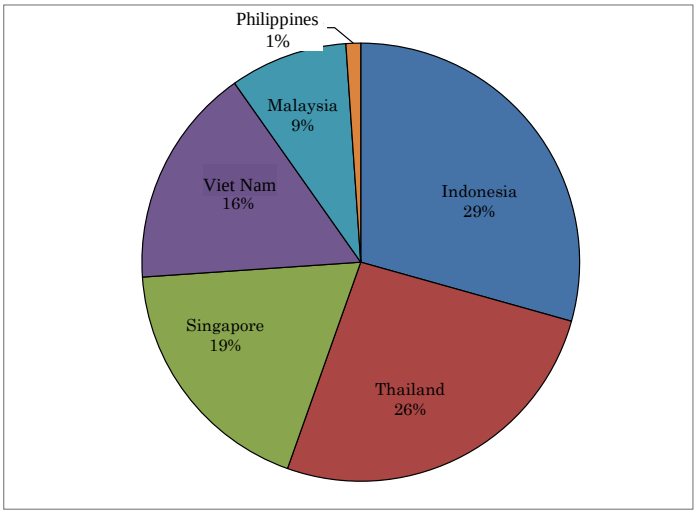


Table 3.1: Distribution of Local Subsidiaries by Host and Home Countries

	US/EU	CN/JP/KR	Total
Indonesia	12	15	27
Thailand	7	17	24
Singapore	7	10	17
Viet Nam	10	5	15
Malaysia	0	8	8
Philippines	0	1	1
Total	36	56	92

CN/JP/KR = China/Japan/Korea, US/EU = United States/European Union.

2. Involvement of IP Divisions in Decision-Making on Foreign Direct Investment

First, we will analyse the degree of involvement of IP divisions in the decision-making on overseas expansion, which will provide insight into the importance companies attach to IP-related issues when deciding on expanding their business to ASEAN countries. We asked the respondents whether their IP division or department was ‘highly involved’, ‘slightly involved’, or ‘not involved’.

Figure 3.3 shows the distribution of responses. We found that the IP division was highly involved for 33 percent of respondent companies, whereas for 17 percent of respondents, the IP division did not have any part in the expansion decision.

Separating the sample into JP/CN/KR companies and EU/US companies provided a clear contrast. As can be seen in Figure 3.4, among the CN, JP, and KR companies, only one company reported their IP division was highly involved, whereas for 31 percent of CN, JP and KR companies, the IP division was not at all involved in the decision-making on FDI. In contrast, for the US and EU companies, about 56 percent answered that the IP departments were highly involved and the share of the companies where the IP divisions were not involved was only six percent.

Figure 3.3: Degree of Involvement of IP Division (N=60)

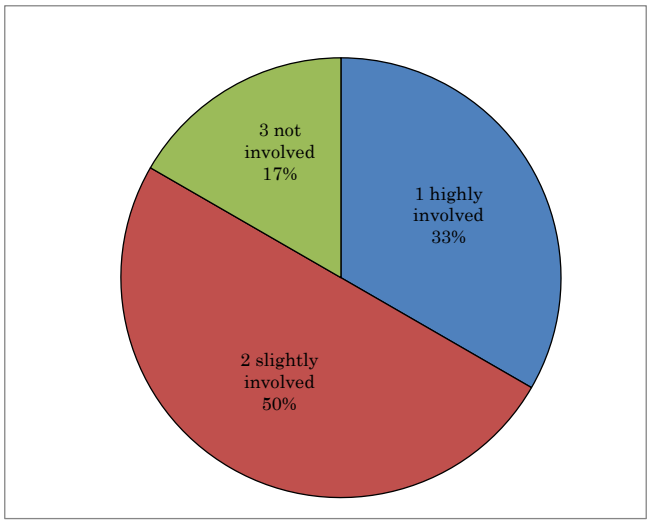
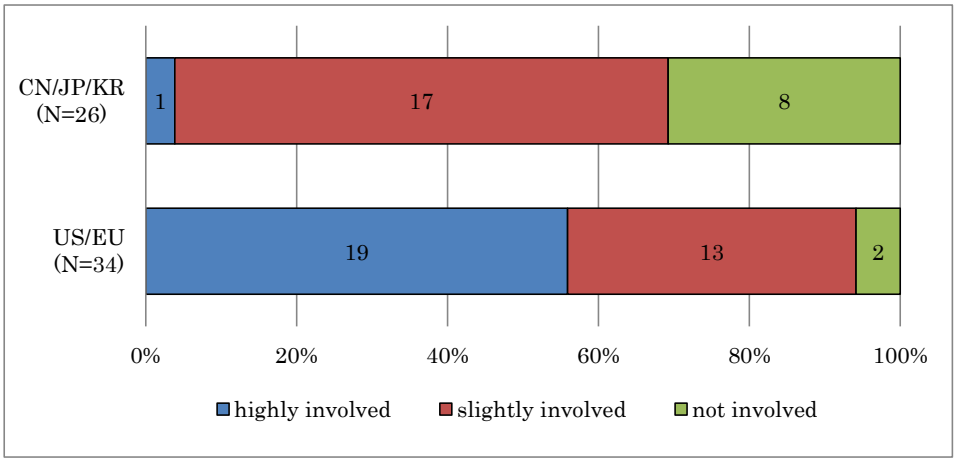


Figure 3.4: Degree of Involvement of IP Department by Home Country



3. Ex-ante Factors Considered and Ex-post Problems Faced

When analysing the relation between IPR protection and FDI, it is important to differentiate ex-ante factors considered and ex-post problems faced. It is possible that local subsidiaries face IP-related problems in operating their business in the host country even if they did not consider IP-related issues ahead of expansion[1].

We asked the respondents whether they considered the following 23 factors before expanding to ASEAN countries and whether they faced these issues after establishment: (1)

[1] We intended that the respondents to this question are the persons in charge of decision-making on FDI, such as a member of the Planning Division.

size and growth rate of GDP; (2) size and growth rate of the relevant market; (3) price level; (4) stability of exchange rate; (5) wage level (labour cost); (6) quality of human capital; (7) ease of establishing sales channels; (8) ease of procuring raw materials, components, etc.; (9) receptiveness to foreign products by local customers; (10) number of existing competitors in the relevant market; (11) legal development concerning IPR; (12) implementation and enforcement of IP law; (13) country risk; (14) completeness and reliability of infrastructure; (15) size and growth of the relevant market in neighbouring countries; (16) number of prior establishments of local subsidiaries from advanced countries; (17) trade barriers or trade friction; (18) requirements for operating permit; (19) distance from home country; (20) distance from neighbouring country with large market; (21) corporate tax rate; (22) existence of preferential treatment system; and (23) regulations on currency repatriation and exchange.

Figures 3.5 and 3.6 compare the factors considered before expanding to ASEAN countries with the issues faced after establishing a subsidiary. The length of the bar represents the share of the firms that consider the factor to be important. In Figure 3.5, before expansion, we can see that major factors considered were size and growth rate of the relevant market, wage level (labour cost), and size and growth rate of GDP. IP-related factors, level of legal development concerning IPR, and level of implementation and enforcement of IP law,' are relatively less considered. However, as we can see in Figure 3.6, after establishing a new subsidiary, those IP-related factors were perceived as major issues they had to face.

Figure 3.5: Factors Considered Before Expanding to ASEAN (N=80)

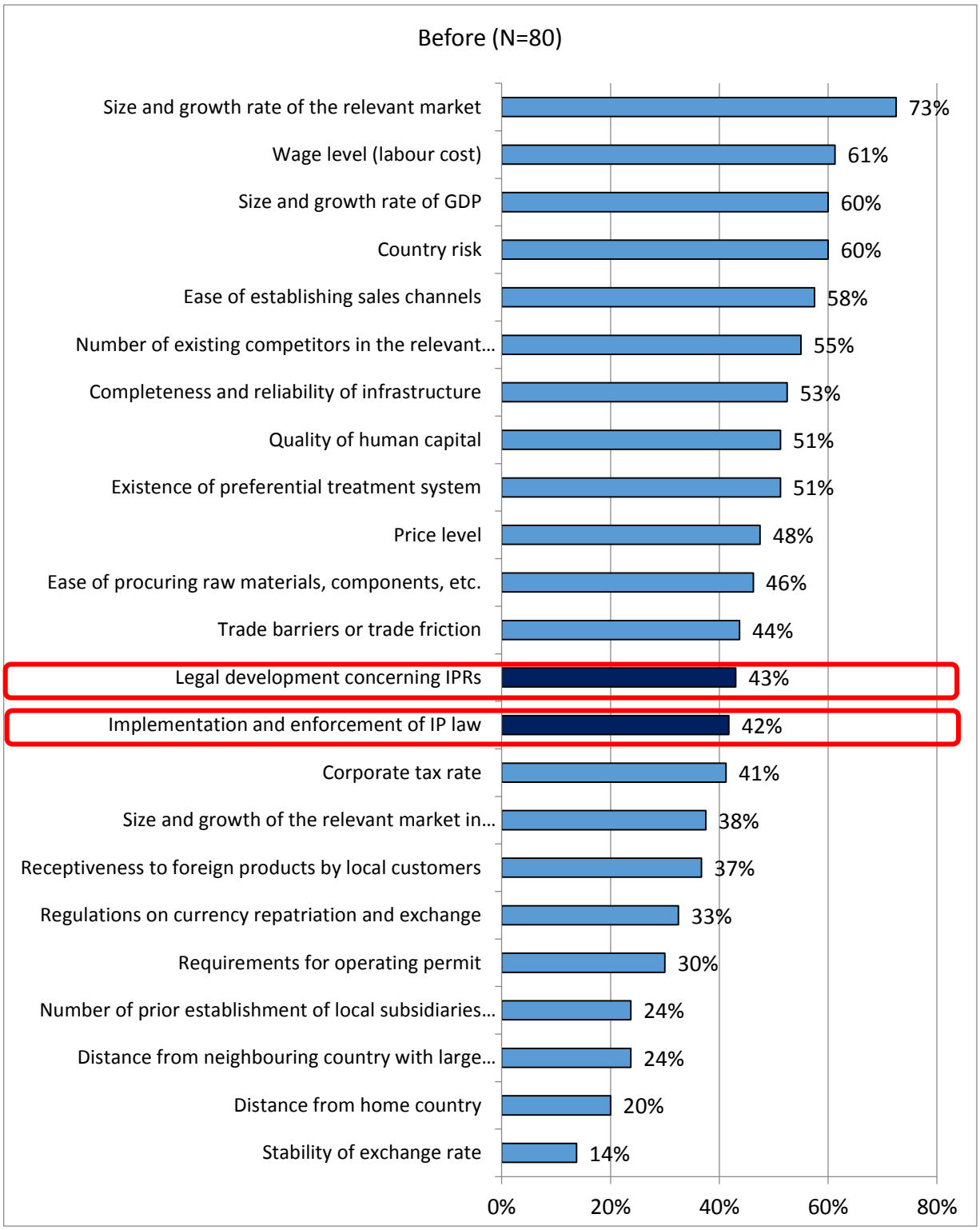
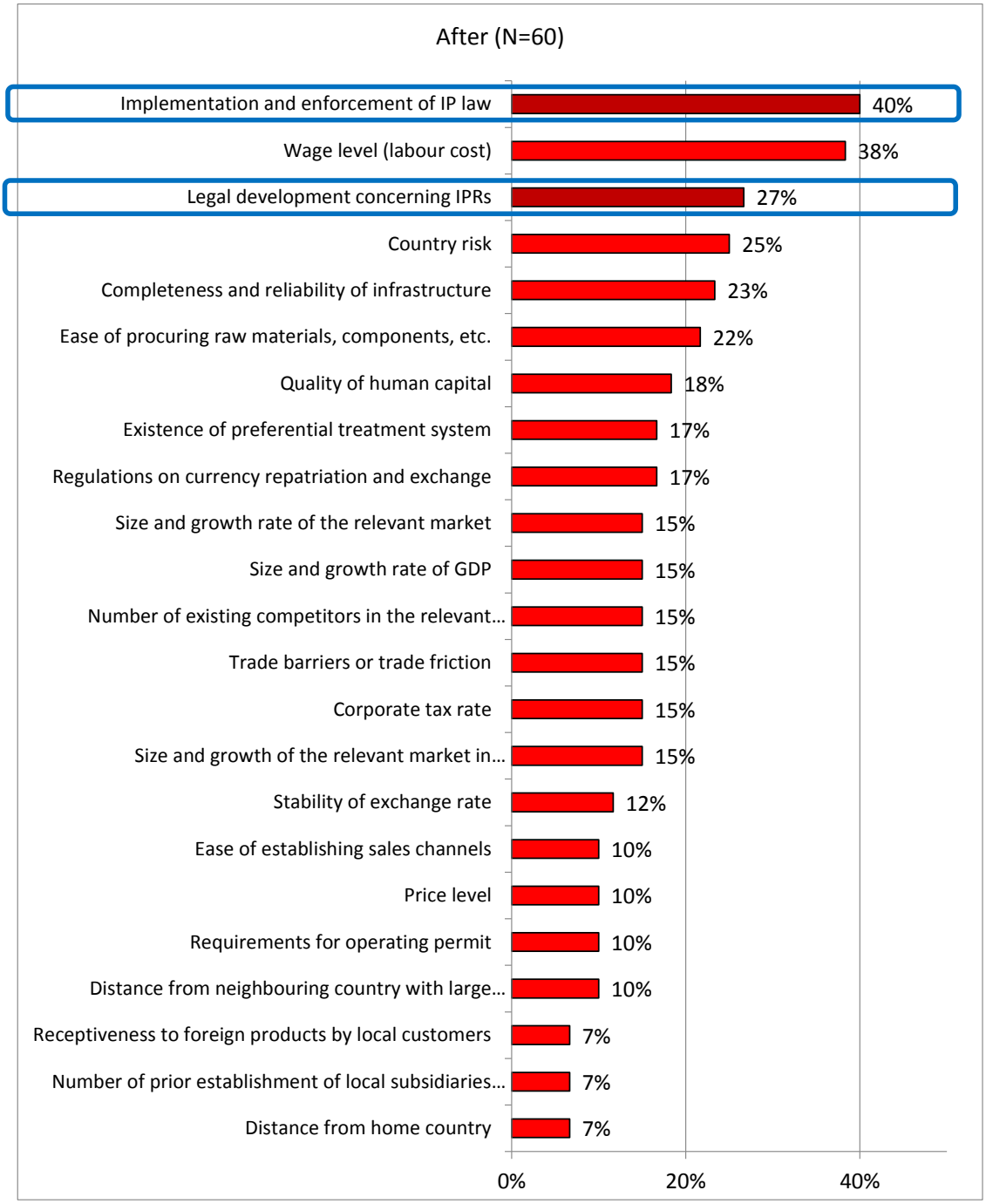


Figure 3.6: Problems Faced After Establishing Local Subsidiaries (N=60)



A comparison of the Asian (CN/JP/KR) companies and the Western (US/EU) companies surveyed regarding the ex-ante and ex-post issues shows some interesting differences. In Figure 3.7, we can see that Asian companies did not consider IP-related issues before expansion, but they did recognise the problems related to those issues after establishing local subsidiaries. This is consistent with the result that the IP divisions of Asian companies were less involved in the decision to expand.

The EU/US companies surveyed, however, strongly considered IP-related issues before

expanding to ASEAN. After the establishment of subsidiaries, IP-related issues, especially implementation and enforcement of IP laws, were recognised as important for US/EU companies. The share of firms facing an IP-related problem was smaller than that at the ex-ante stage but larger than for CN/JP/KR companies at the ex-post stage. Therefore, EU/US companies strongly focused on IPR protection in ASEAN countries, especially before the expansion. This result is also consistent with the active involvement of IP departments in the expansion decision among EU/US companies.

Figure 3.7: Issues Faced by CN/JP/KR Companies Before and After Expansion

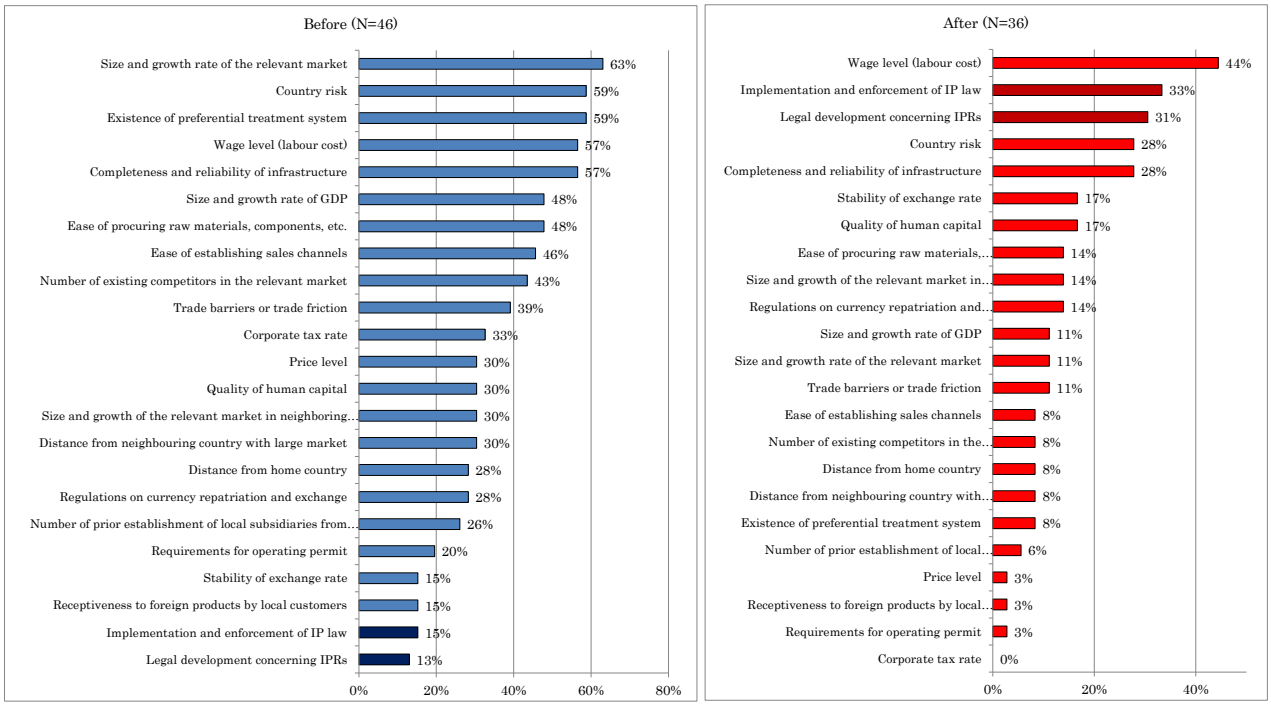
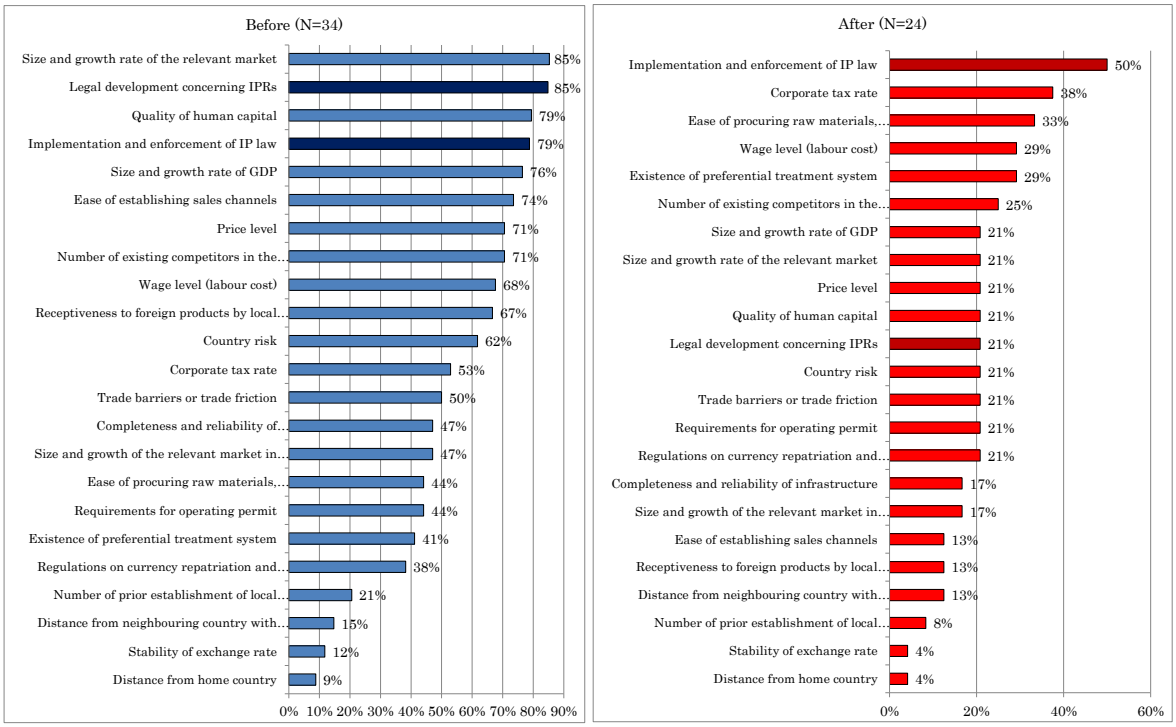


Figure 3.8: Issues Faced by EU/US Companies Before and After Expansion



4. IP-Related Factors Considered

The survey asked respondents how significant their firms considered the following IP-related factors to be before and after expansion on a five-point scale[2]: (1) scope of patent rights, (2) development of legal system on patent rights enforcement, (3) operation of legal system on patent rights enforcement, (4) scope of trademark rights, (5) development of legal system on trademark rights enforcement, (6) operation of legal system on trademark rights enforcement, (7) scope of design patent rights, (8) development of legal system on design patent rights enforcement, (9) operation of legal system on design patent rights enforcement, (10) scope of utility model patent rights, (11) development of legal system on utility model patent rights enforcement, (12) operation of legal system on utility model patent rights enforcement, (13) scope of copyrights, (14) development of legal system on copyrights enforcement, (15) operation of legal system on copyrights enforcement, (16) technology know-how protection system and the level of protection, and (17) trade secret protection system and the level of protection (not including technology know-how).

[2] These questions were intended to be answered mainly by persons belonging to the IP divisions.

Figures 3-9 and 3-10 show the average scores the firms attributed to each IP-related factor before and after expansion, respectively. We found that, on average, trademark-related issues were of high concern both before and after expanding to ASEAN countries. We also found that trade secret issues and patent-related issues were accorded higher importance after establishing local subsidiaries. These results could indicate a high concern for counterfeit goods for sales-based companies, and for technology drain for production-based companies. Unlike the results for general determinants shown in Figures 3.5 and 3.6, we did not find a large difference in the importance of IP-related issues between the ex-ante and ex-post stages, and found relatively high importance accorded to IP-related issues even at the ex-ante stage. This may be because most of the respondents to these questions were from the IP department, whereas the questions regarding general matters were supposed to be answered by persons in charge of business planning.

Figure 3.9: Considerations Given to the IP System
Before Establishing Subsidiaries

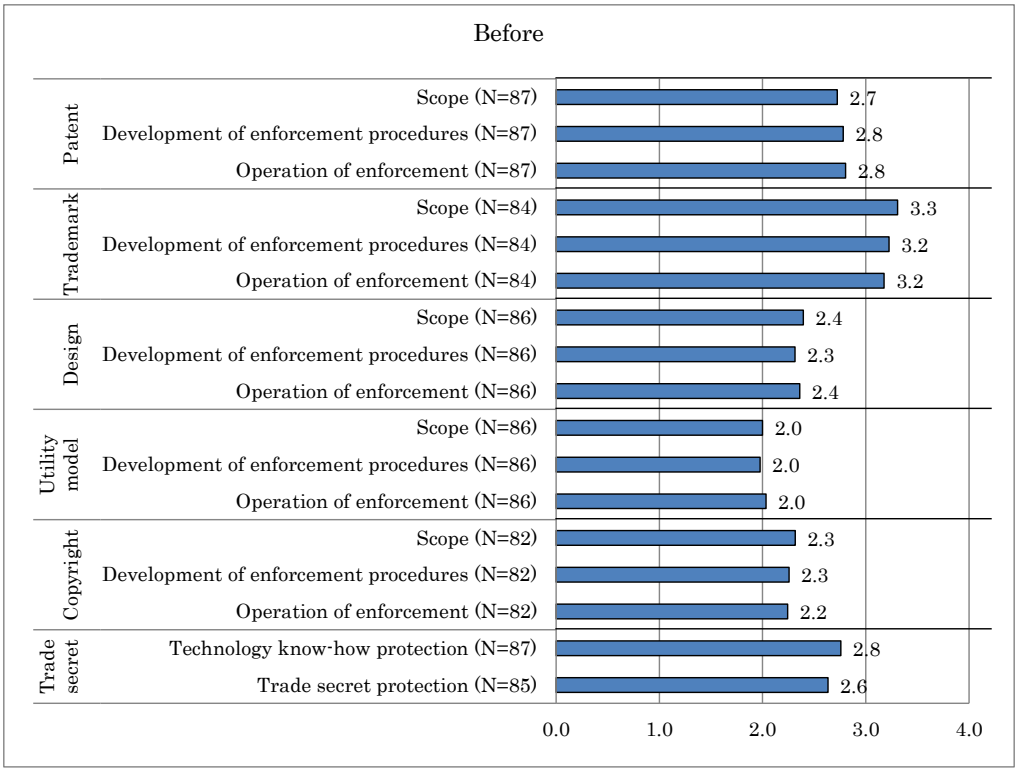
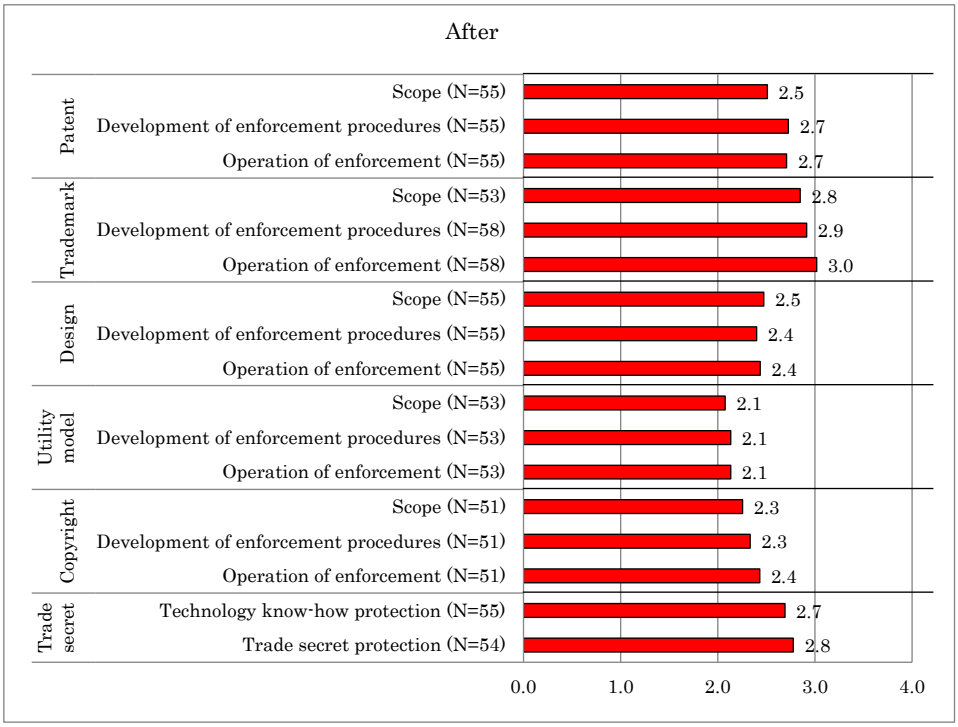


Figure 3.10: Considerations Given to the IP System After Establishing Subsidiaries



Figures 3.11 and 3.12 show the average scores for the importance of IP-related issues for the subsample consisting of CN/JP/KR companies and EU/US companies, respectively. These figures show that for both the CN/JP/KR firms and the EU/US firms, the trademark issue is the most important factor considered in deciding to expand to ASEAN countries. It is worth noting that for the CN/JP/KR companies, the second most important issue is trade secret, whereas the EU/US companies accorded relatively high importance to patent protection.

Figure 3.11: Considerations of CN/JP/KR Firms of the IP System Before Establishing Subsidiaries

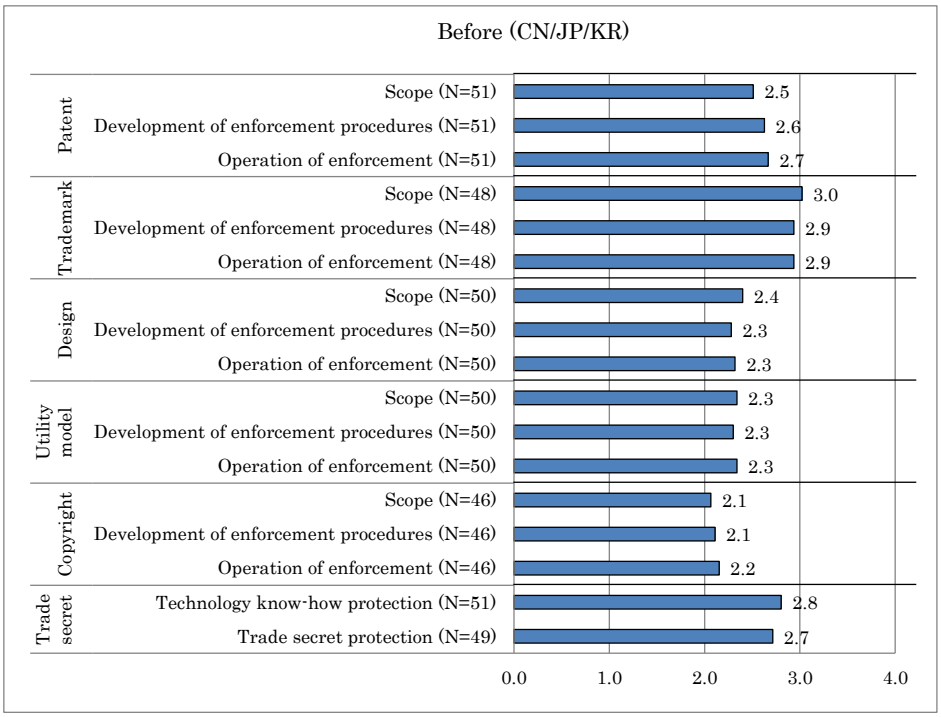
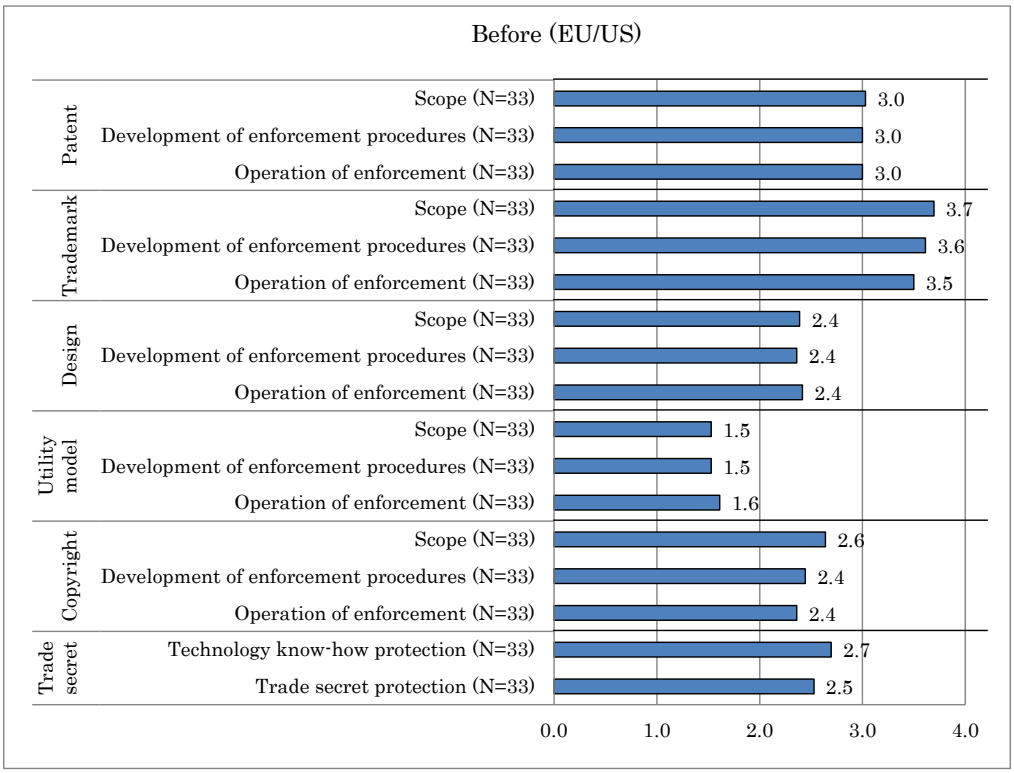


Figure 3.12: Considerations of EU/US Firms of the IP System Before Establishing Subsidiaries



Figures 3.13 and 3.14 show the average scores after establishing subsidiaries for CN/JP/KR firms and EU/US firms. These figures show similar trends for factors considered ex-ante, except that for both the EU/US and CN/JP/KR firms, trade secret–related issues were the second most important factor after establishing local subsidiaries.

Figure 3.13: IP System Issues Faced by CN/JP/KR Firms After Establishing Subsidiaries

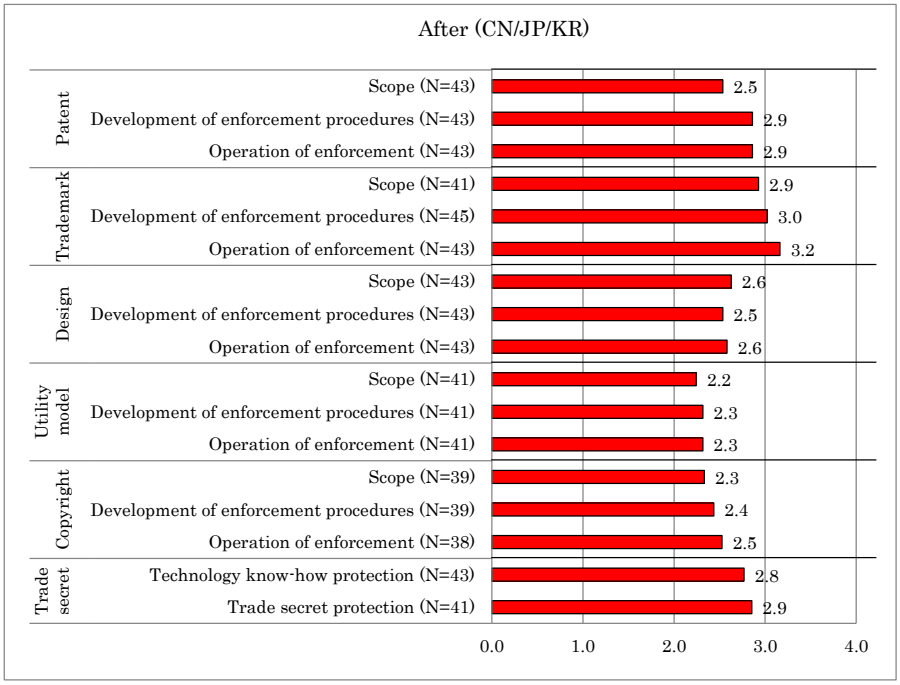
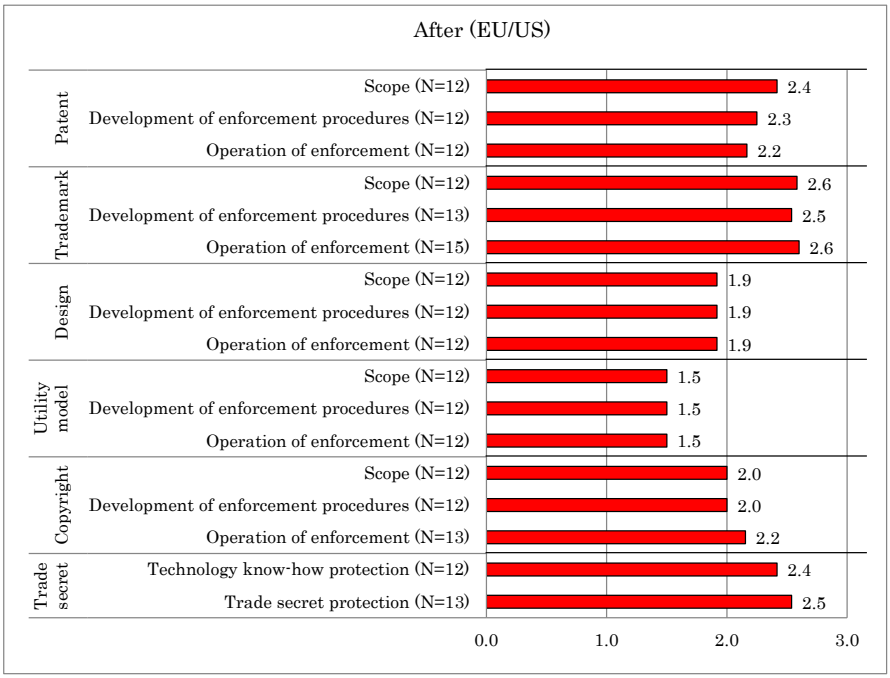


Figure 3.14: IP System Issues Faced by EU/US Firms After Establishment



5. Specific Matters Regarding IPR

Figures 3.15 to 3.20 show how significant the firms considered specific matters of IPR to be—Figures 3.15 for patent right, 3.16 for trademark, 3.17 for design patent, 3.18 for utility model patent, 3.19 for copyright, and 3.20 for other IP-related systems.

The survey asks about the following specific IPR matters: For patent right: (1) patent prosecution timeline, (2) related costs for obtaining patents (including patent attorney fees and translation costs), (3) patent maintenance fee, (4) home country application system, (5) employers' duty in employee invention, (6) correction of patents, (7) patent invalidation proceedings, (8) exercises on compulsory licensing rights, (9) co-ownership of patent rights, (10) patent assignment system, (11) patent licensing system, (12) patent term, (13) patent injunctions, (14) patent damages, (15) membership of international patent law treaties, (16) secret patent system (patents application indicating national security).

For trademark: (1) types of trademark, (2) trademark prosecution timeline, (3) related costs for obtaining trademark (including patent attorney fees and translation costs), (4) trademark maintenance fee, (5) rescission of trademark registration based on non-use, (6) trademark invalidation proceedings, (7) co-ownership of trademark rights, (8) trademark assignment system, (9) trademark licensing, (10) trademark term, (11) trademark injunctions, (12) trademark damages, and (13) membership of international trademark law treaties.

For design patent: (1) design patent prosecution timeline, (2) related costs for obtaining design patents (including patent attorney fees and translation costs), (3) design patent maintenance fee, (4) design patent protection for a part of products, (5) co-ownership of design patents, (6) design patent assignment system, (7) design patent licensing, (8) design patent term, (9) design patent injunctions, (10) design patent damages, and (11) membership of international trademark law treaties.

For utility model patent: (1) utility model patent prosecution timeline, (2) related costs for obtaining utility model patents (including patent attorney fees and translation costs), (3) utility model maintenance fee, (4) co-ownership of utility model patents, (5) utility model assignment system, (6) utility model patent licensing, (7) utility model patent term, (8) utility model patent injunctions, (9) utility model patent damages, and (10) utility model technical opinion.

For copyright: (1) employee works, (2) scope of neighbouring rights protection, (3) copyright registration, (4) co-ownership of copyright, (5) copyright assignment system, (6) copyright licensing, (7) copyright term, (8) copyright injunctions, (9) copyright damages,

(10) level of criminal punishment for copyright infringement, and (11) membership of international copyright law treaties.

For other IP-related system: (1) invalidity of grant-back clauses (assignment-back, an exclusive or non-exclusive grant-backs, and reciprocity grant-back); (2) invalidity of NAP clauses; (3) transparent and predictable tax system on transfer pricing; (4) licensor's warranty obligation; (5) rates control for license fee; (6) export controls on technology transfer; (7) state of headhunting and an employee's duty to refrain from competition; (8) objects of license contracts; (9) control to license contracts; (10) contractor registration system; (11) establishment and enforcement of a system similar to Bayh-Dole; (12) import and export control for counterfeiting goods (injunctions); (13) technology know-how protection system and the level of protection; and (14) trade secret protection system and the level of protection (not including technology know-how).

The length of each bar represents the shares of firms that recognised it as a factor of concern. The blue bar represents the share at the ex-ante decision stage and the red bar at the ex-post stage. Overall, patent-related and trademark-related issues were of relatively high concern. Costs for obtaining the rights and examination duration are the largest concerns among the patent- and trademark-related issues before expansion. After establishment, injunctions and damages are also recognised as important problems. Moreover, Figure 3.20 shows that technology know-how protection and trade secret protection are major factors considered both before and after expansion.

Figure 3.15: Specific Matters Concerning Patent Rights

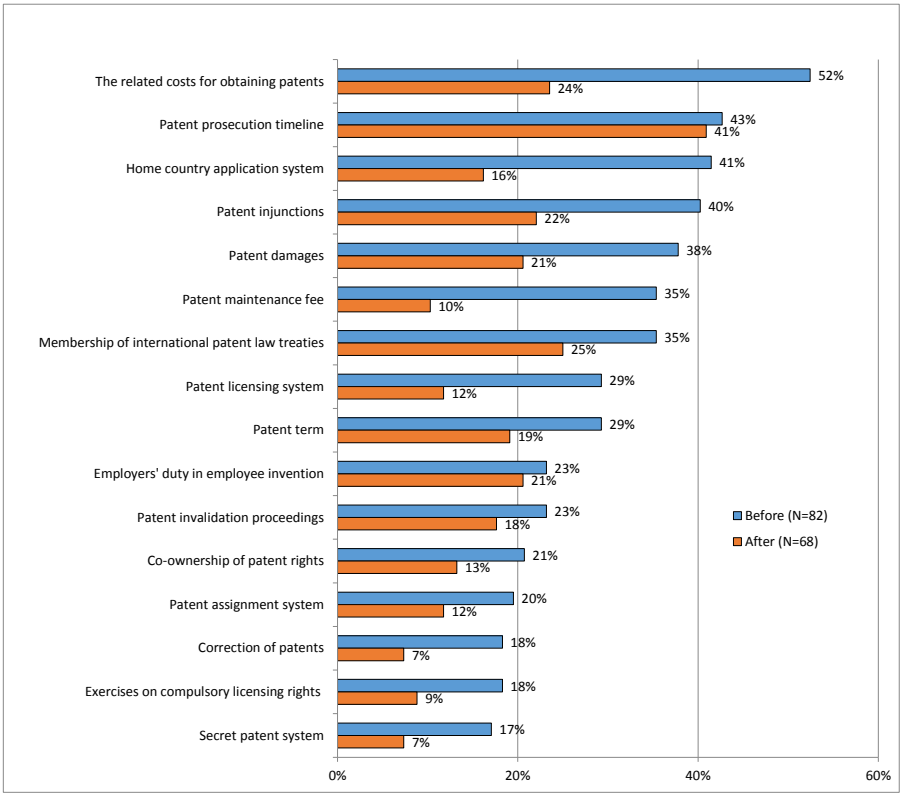


Figure 3.16: Specific Matters Concerning Trademark

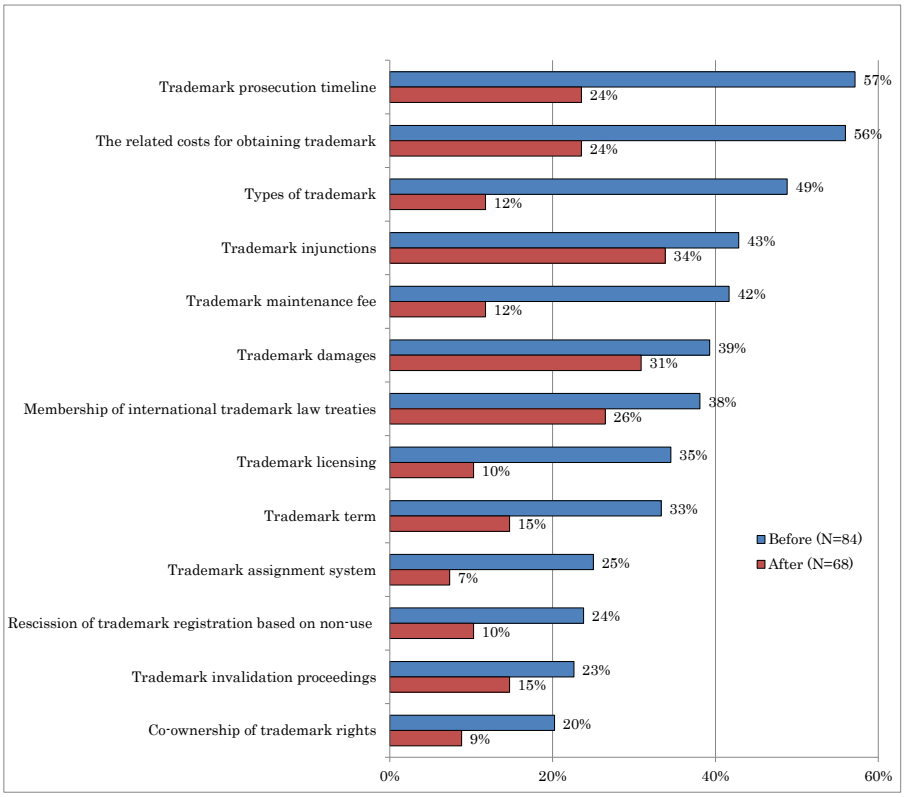


Figure 3.17: Specific Matters Concerning Design Patent

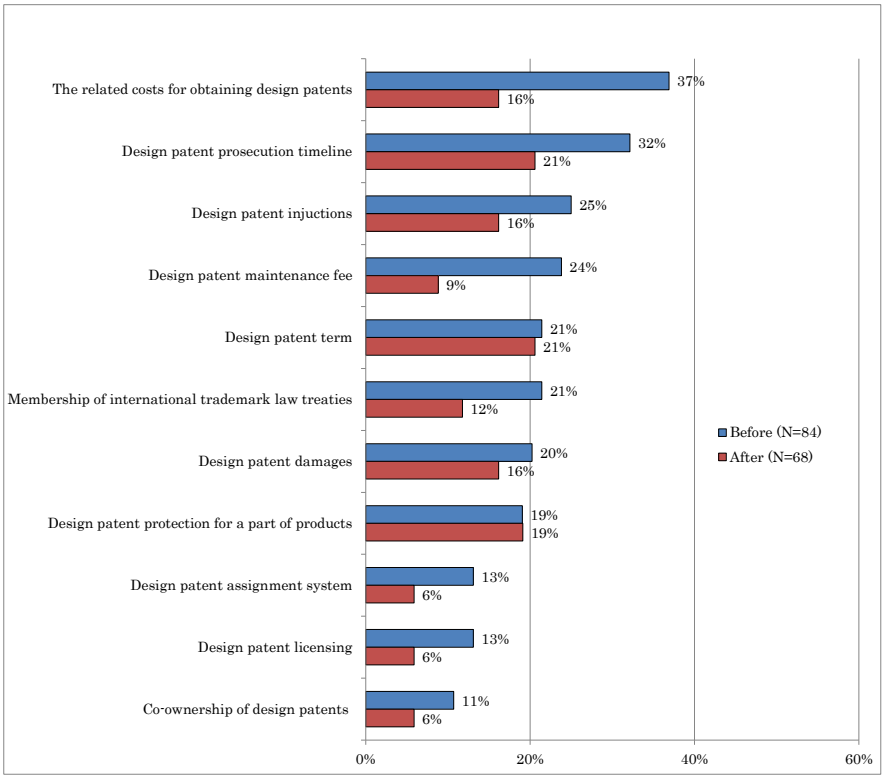


Figure 3.18: Specific Matters Concerning Utility Model Patent

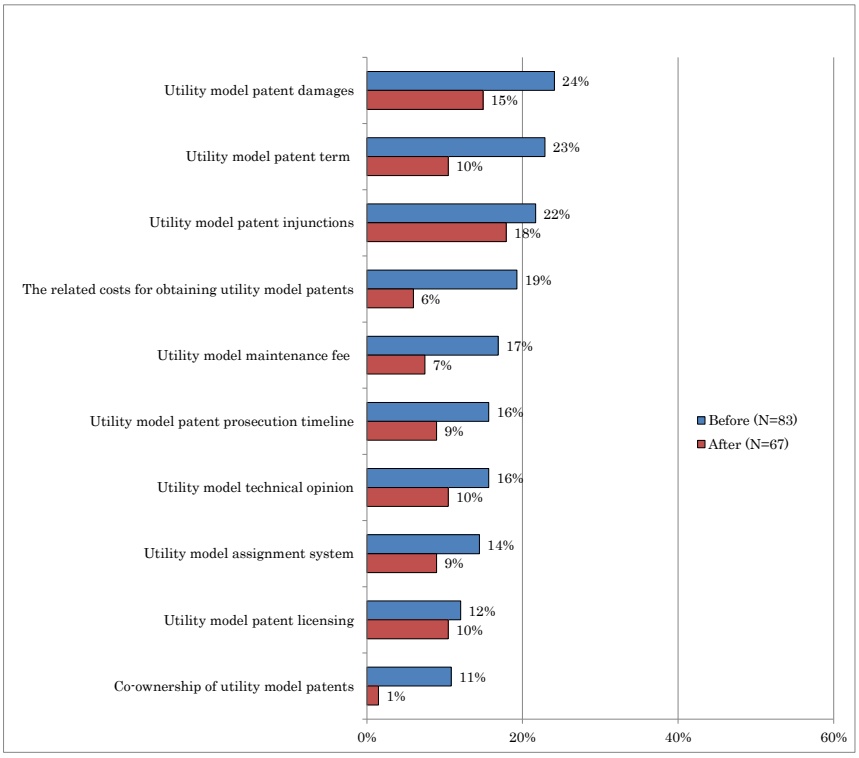


Figure 3.19: Specific Matters Concerning Copyright

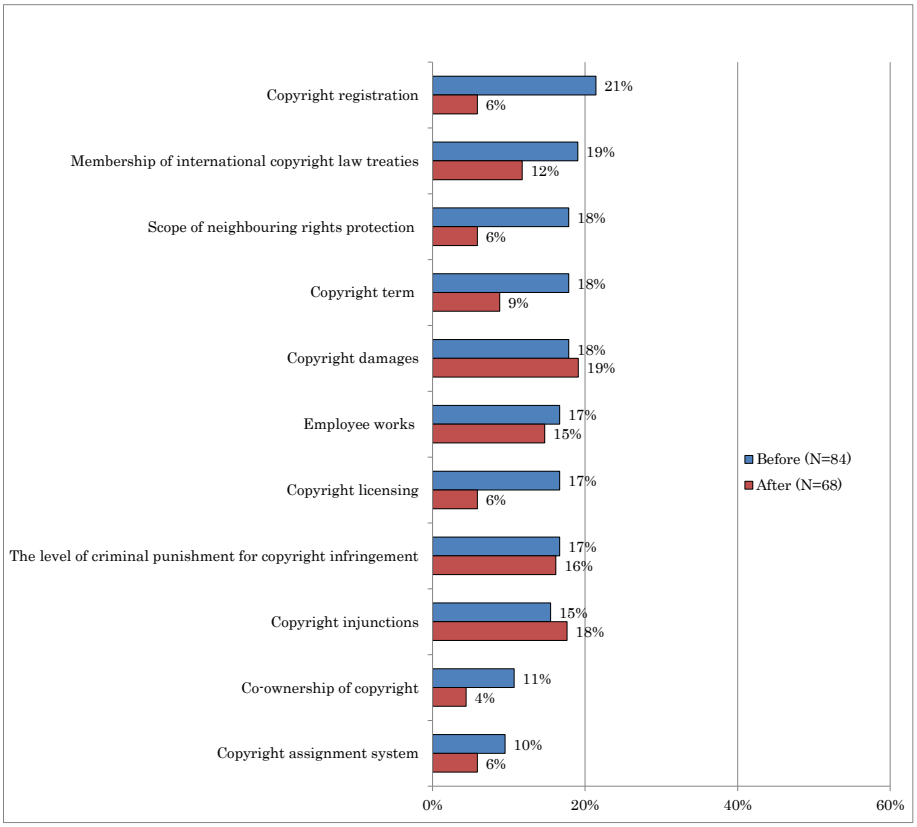
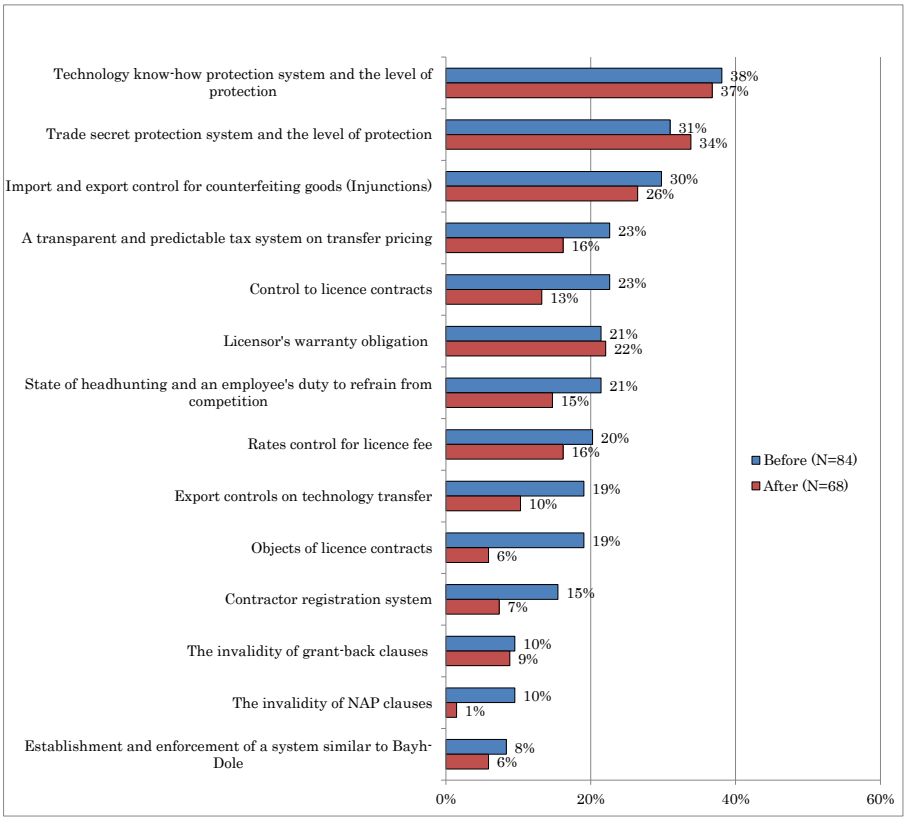


Figure 3.20: Specific Matters Concerning Other IP-Related Systems



Figures 3.21, 3.22, and 3.23 compare the shares of firms between CN/JP/KR firms and EU/US firms that considered patent-related, trademark-related specific matters, and other IP-related systems before expansion.

As for patent and trademark, Figures 3.21 and 3.22 show that pending period and cost for obtaining right were the common problems for CN/JP/KR companies and EU/US companies. Especially, EU/US firms were highly concerned about pending period. Damage and injunctions were also recognised as big problems for both Asian and EU/US companies.

A key difference regarding patent- and trademark-related issues was that the EU/US companies surveyed were more likely to be concerned about maintenance fee compared with the Asian companies.

As for other IP-related systems, we can see the EU/US firms' higher share for most of the specific matters. This result reflects the' higher IP awareness of EU/US firms compared with the Asian firms. Import and export control for counterfeiting goods (Injunctions), transparent and predictable tax system on transfer pricing, control to license contracts, and export controls on technology transfer were more important concerns for the EU/US firms. But the Asian companies accorded as much importance to technology know-how and trade secret as the EU/US companies.

Figure 3.21: Comparison of Specific Matters Concerning Patent Rights

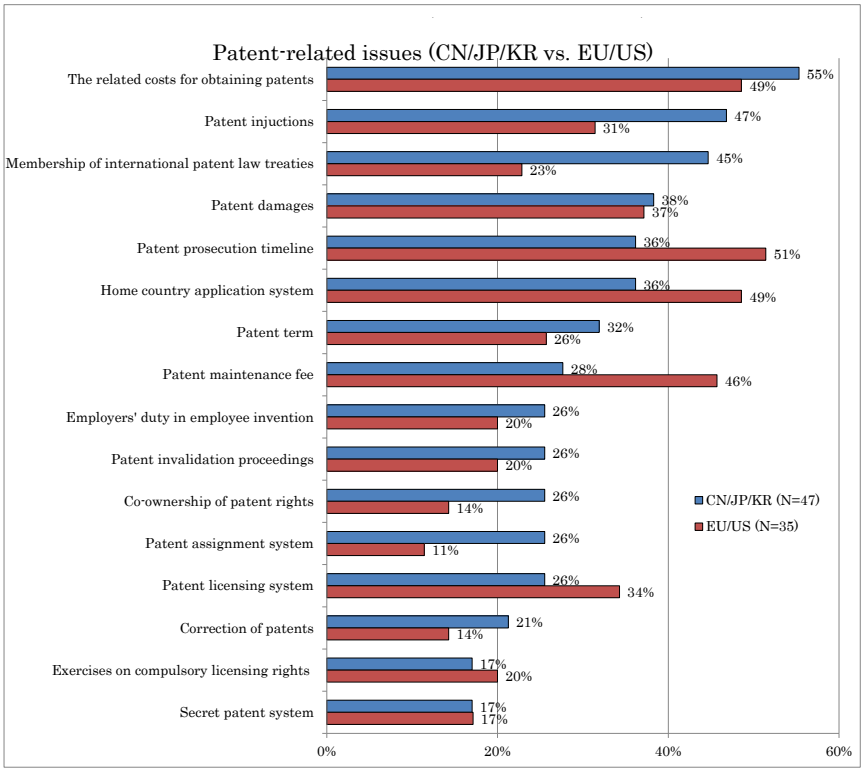


Figure 3.22: Comparison of Specific Matters Concerning Trademark

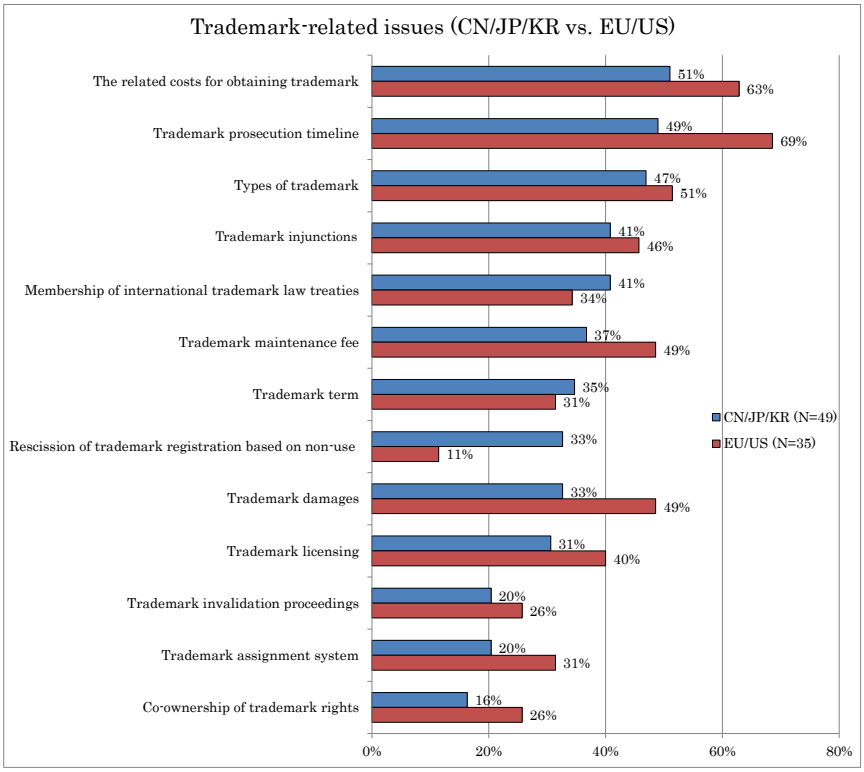
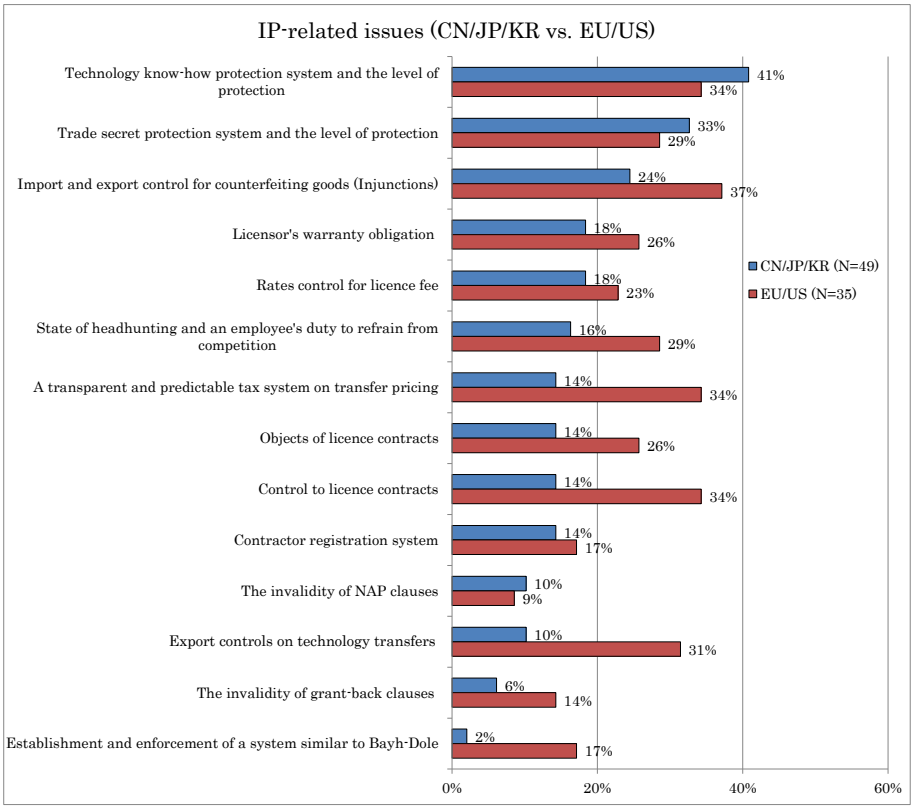


Figure 3.23: Comparison of Specific Matters Concerning Other IP-Related Systems



6. Summary

The results presented above suggest that improving the protection of trademark and patent would increase FDI inflows into ASEAN countries. Shortening the examination duration and reducing the cost for obtaining rights in particular would contribute to an increase in FDI. We also found that the protection of trade secret and technology know-how matters for bringing in further investments.

Recently, the ‘reshoring’ movement has been increasing in the US, the major reason being that production costs have been rapidly decreasing in the country. However, the hidden costs, such as the risk of technology drain, have also been increasing, which could be another reason for the increase in reshoring.

The survey results show the increasing concerns of Asian companies regarding technology know-how and trade secret protection, which imply that reshoring can spread to Asian companies. Therefore, strengthening the protection of know-how and trade secret matters for preventing withdrawals of Asian companies established in ASEAN.

Moreover, EU/US companies were highly concerned about IP-related systems, such as import and export control for counterfeit goods, transparent and predictable tax system for transfer pricing, control to license contracts, and export controls on technology transfer. Asian companies had not accorded great importance to these specific matters yet. However, increasing the IP awareness of Asian companies can provide an opportunity to promote FDI by improving these IP-related systems.

CHAPTER 4

Expansion Factors: Similarities and Differences in ASEAN Countries

This chapter analyses the similarities and differences of factors considered and issues faced by the subsidiaries by host country. Since the sample is quite limited, we restrict the host countries to the top three countries: Indonesia, Thailand, and Singapore.

1. Differences in Factors Considered by Host Countries

Figure 4.1 shows the share of firms considering each factor before expanding to Indonesia, Thailand, and Singapore, respectively.

The overall trend is that the firms in Singapore were less concerned about many of the listed factors compared with the Indonesian and Thai firms. In Singapore, business environment factors, such as the completeness and reliability of infrastructure and the existence of preferential treatment system, were considered important determinants. Moreover, we can see the relatively high importance accorded to the quality of human capital in Singapore, which indicates the attractiveness of the Singaporean research and development (R&D) environment. The figures for Indonesia and Thailand show similar propensities, but firms focused much more on marketability and cost factors. The wage level in particular was a significant factor in Thailand. We found that in each country IP-related factors are not important determinants for establishing a new local subsidiary.

Figure 4.1: Factors Considered by Host Countries Before Expansion

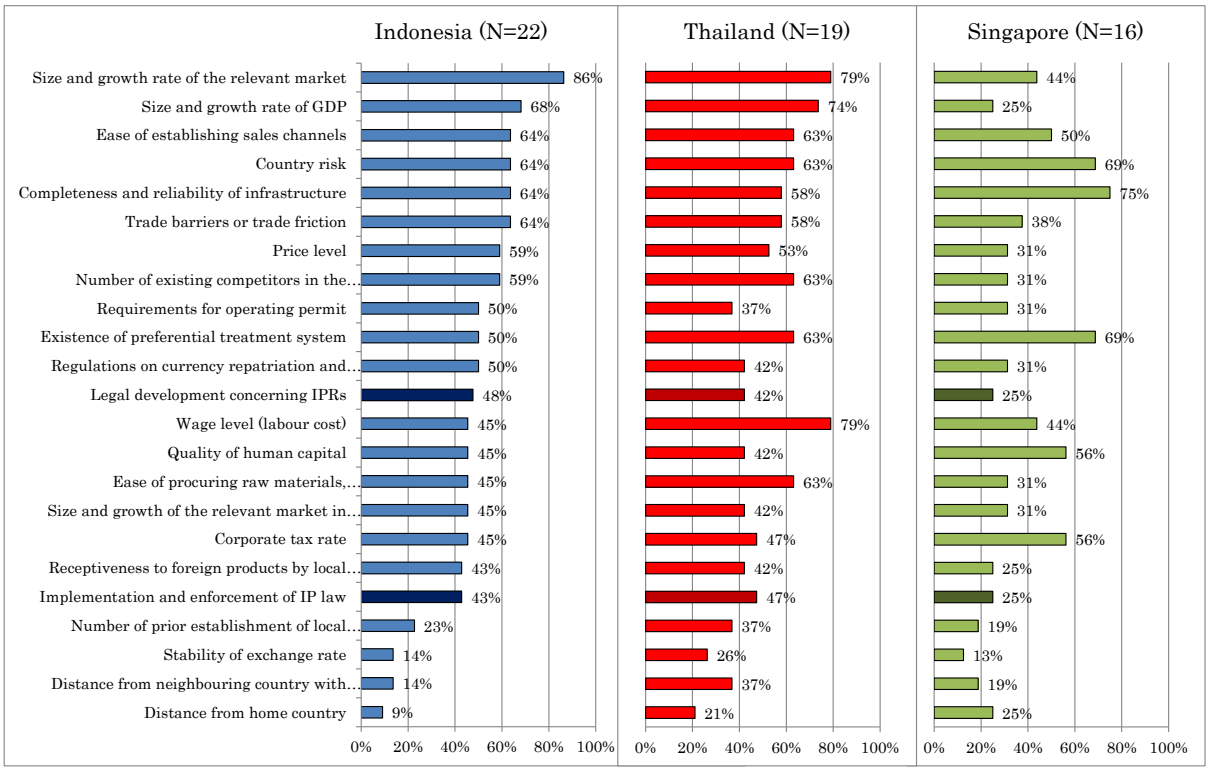
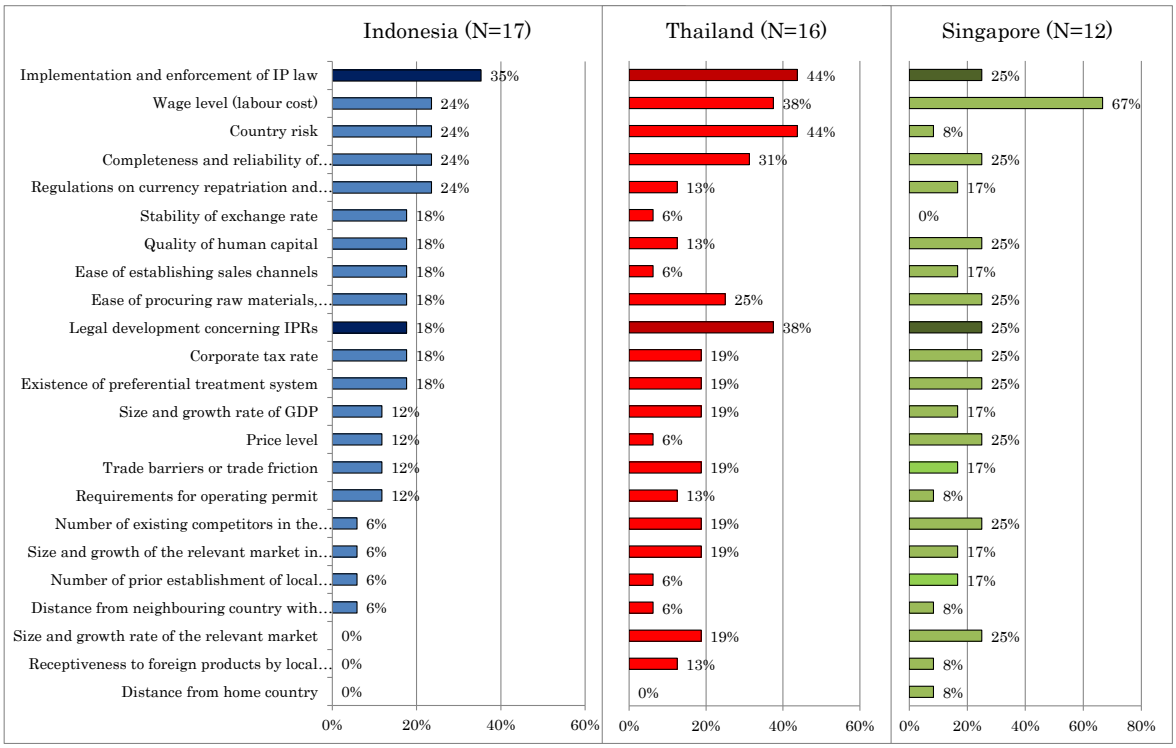


Figure 4.2 compares the share of the firms facing problems after expansion between three countries. In Indonesia and Thailand, the implementation and enforcement of IP law were the biggest problem. In Singapore too, quite a few firms faced IP-related issues, but the most important factor was the wage level.

Figure 4.2: Problems Faced by Host Countries After Establishing Subsidiaries



2. Differences in Consideration of the IP System by Host Countries

Figures 4.3 and 4.4 show the average scores for the importance attached to the IP system in Indonesia, Thailand, and Singapore before and after expansion, respectively. We can see similar scores before and after establishment.

In each country, especially in Indonesia, trademark-related issues are the most important determinants and problems faced. In Indonesia, copyright-related issues were bigger problems than in the other two countries, while concern about utility model–related issues are relatively minor. Moreover, we found that trade secret–related issues are the second most important factors considered in each country. Figure 4-4 shows that concerns about each IP-related issue are likely to increase after expansion, especially in Indonesia and Thailand.

Figure 4.3: Consideration of the IP System by Host Countries Before Establishing Subsidiaries

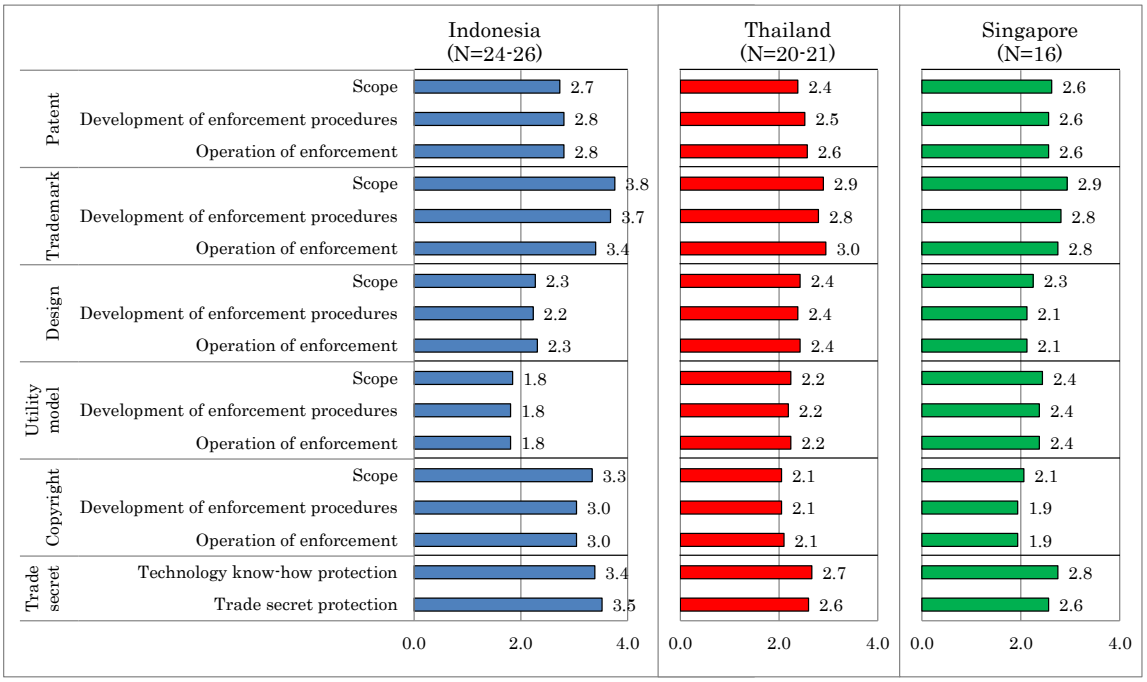
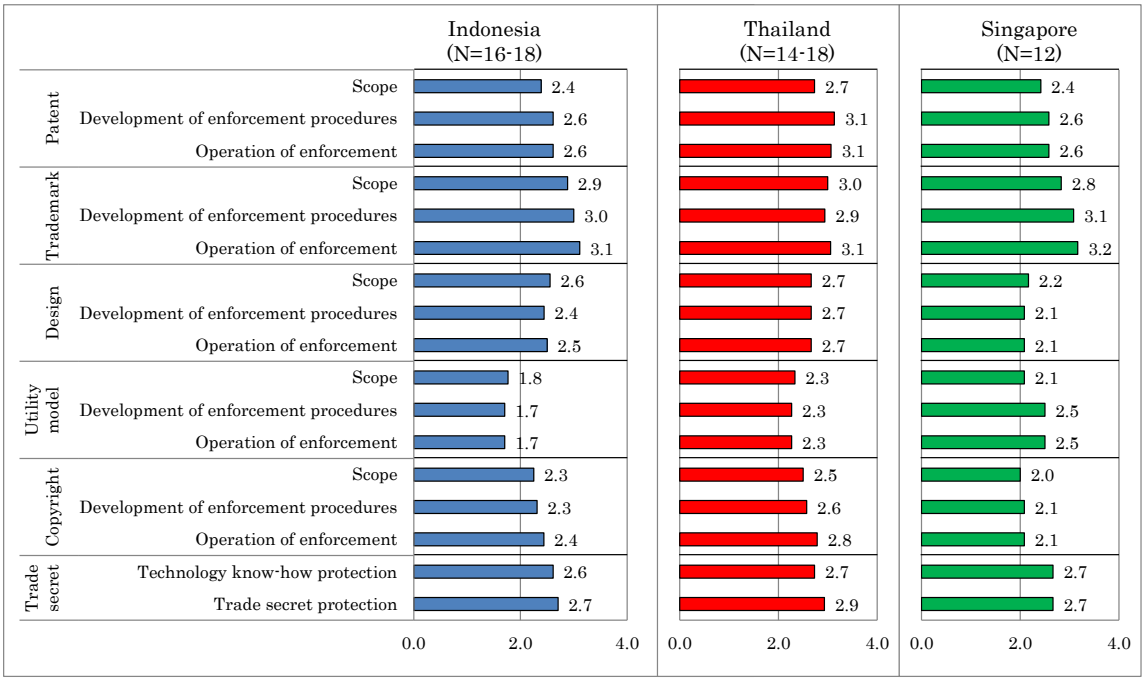


Figure 4.4: Consideration of the IP System by Host Countries After Establishing Subsidiaries

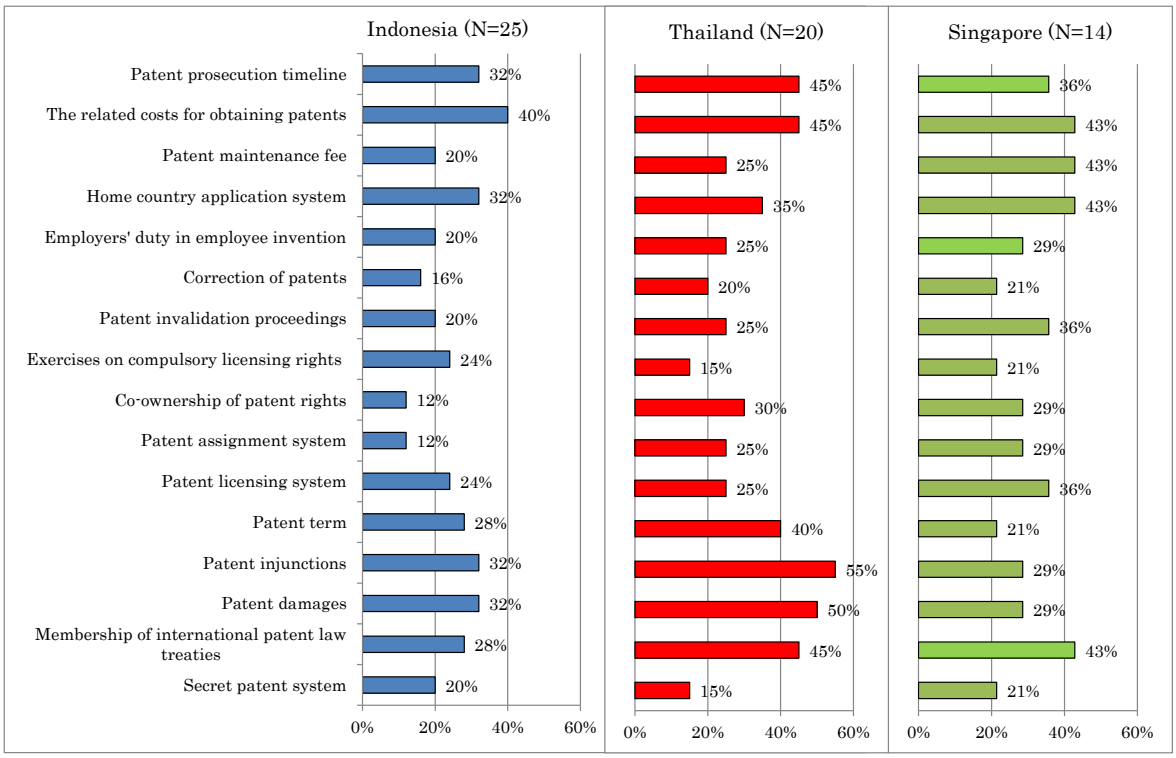


3. Differences in Consideration of Specific Matters by Host Countries

This subsection compares the degree of ex-ante consideration of specific matters of IP-related issues with higher importance—patent right, trademark right, and IP-related system. Figures 4.5, 46, and 4.7 show the shares of the firms considering each specific matter concerning patent, trademark, and IP-related system, respectively.

As for the patent-specific issues, we can see in Figure 4.5 that the cost for obtaining patents and the membership of international patent law were the common factors considered in each host country. In Indonesia and Thailand, patent injunctions and patent damages were of relatively high concern. Moreover, we can see that examination duration was one of the largest factors considered in Thailand.

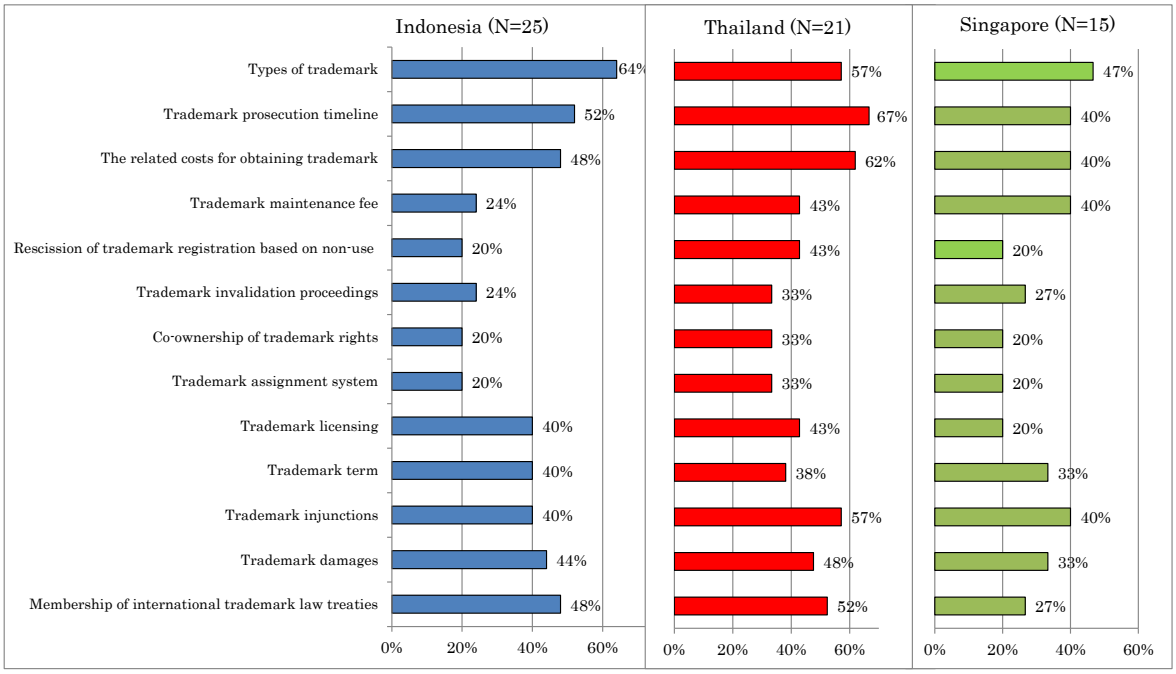
Figure 4.5: Patent-Specific Issues



As we can see in Figure 4.6, consideration of trademark-specific issues shows similar propensity among the three host countries. The firms attached higher importance to the types of trademark, the examination duration, and the cost for obtaining trademarks. This result indicates that pending period and cost were the common problems of the patent and the trademark systems in the host countries. Trademark injunctions and damages were also recognised as important issues in the host countries.

In Indonesia and Thailand, membership of international trademark law treaties was a relatively important factor considered.

Figure 4.6: Trademark-Specific Issues

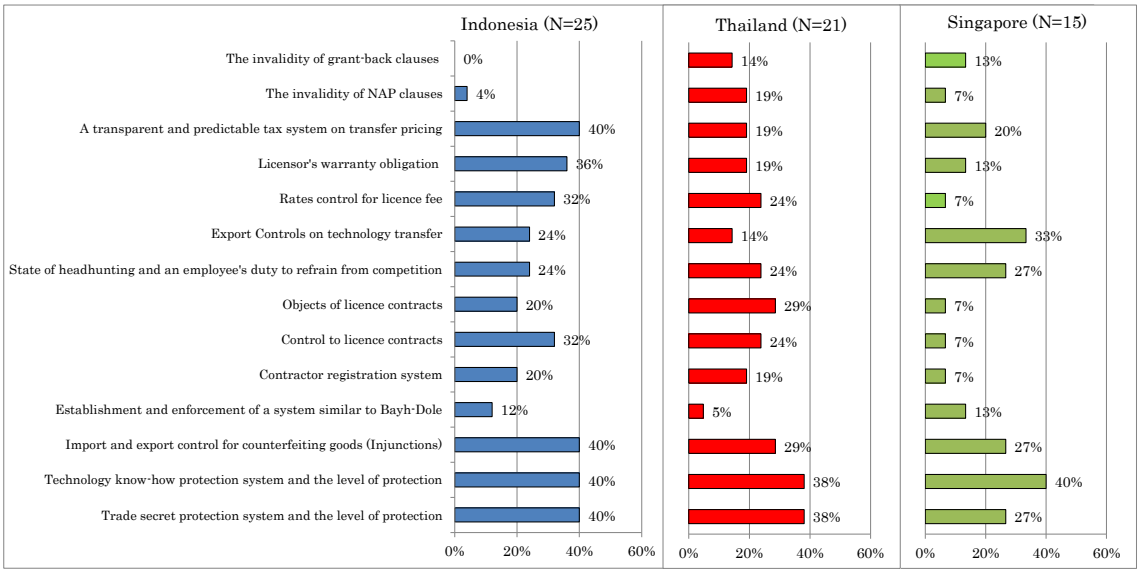


Of the IP-related systems, technology know-how protection and trade secret protection systems were among the factors most commonly considered highly in the host countries. Firms located in Indonesia were more likely to focus on those issues. Moreover, in Indonesia, compared with the other countries, transparent and predictable tax system, import and export control for counterfeit goods, and licensor's warranty obligation were more important.

License-related issues, such as rates control for license fee and control of license contract, were relatively less important in Singapore than in Indonesia and Thailand, while export control on technology transfer was of greater concern in Singapore.

State of headhunting and an employee's duty to refrain from competition had relative high value in the three countries, which could be a reflection of the increased risk of technology drain due to greater labour mobility.

Figure 4.7: IP-Related System



Part III

Analysis of Multinational Companies

CHAPTER 5

Japanese Companies

1. Composition of the Sample

The sample selection of Japanese companies is based on the number of subsidiaries in ASEAN countries and the industries the companies belong to. The source of our data is ‘‘Overseas Activities of Japanese Companies’’ provided by Toyo Keizai. We received responses from 16 companies to our questionnaire survey. We have responses from 31 subsidiaries as we asked each company to provide answers regarding two of their local subsidiaries, with 15 companies complying. The distribution of the sample by host countries is shown in Table 5.1. Of the 31 subsidiaries, 10 are located in Thailand, 9 in Indonesia, 5 in Singapore, 4 in Malaysia, 2 in Viet Nam, and 1 in the Philippines.

Most of those subsidiaries are manufacturing based and/or sales based. But one is a research and development (R&D) company based in Singapore.

Table 5.1: Location of Surveyed Subsidiaries

Country of Location	N
Thailand	10
Indonesia	9
Singapore	5
Malaysia	4
Viet Nam	2
Philippines	1

Table 5.2 shows the distribution of the companies by industry. Our target consists of four chemistry companies, four transportation machine companies, four electric machine and appliance companies, and four food companies.

Table 5.2: Industry of the Companies Surveyed

Industry	N
Chemistry	4
Transportation machine	4
Electric machine and appliance	4
Food	4

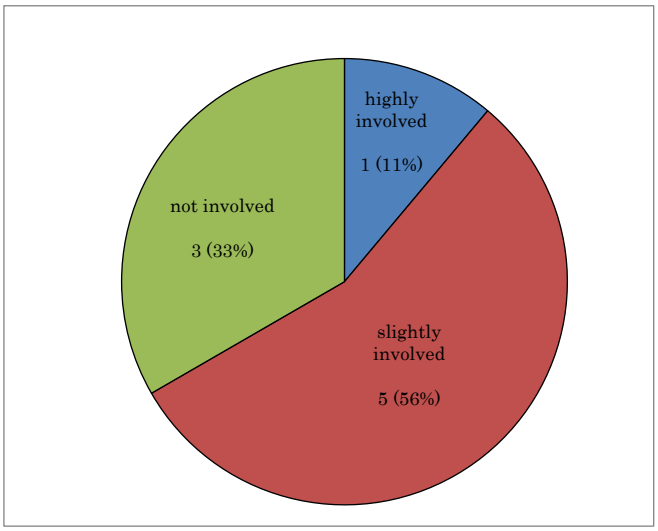
2. Involvement of IP Sectors in Decision-making on FDI

Figure 5.1 shows how actively the IP sector is involved in decision-making concerning overseas expansion. Only one out of nine companies reported that the IP sector is highly involved in international expansion decisions. This suggests that IP-related issues are not sufficiently considered when international expansion is decided on, although the sample is quite limited.[1]

Our interview survey supports this view: most companies tend to and will continue to decide to expand to ASEAN countries even though their IP system is underdeveloped. For example, Company D and Company L did not hesitate to expand to foreign countries just because their IP system was underdeveloped, which is common not only in ASEAN but also in other regions. One reason for the lesser involvement of the IP sector might be that the main focus of expanding companies is a search for new markets and low labour cost in the host countries, rather than technology related. For Company I, it was not necessary to get intellectual property rights (IPR) for its business in ASEAN as its business is based on old technology developed more than 10 years ago. But sometimes the IP sector plays an important role in the expansion process. Company B replied that it first considers management circumstances, and once it has decided to expand to another country, it examines the problems related to IPR in advance. Similarly, the IP section of Company P actively communicates with management to avoid future problems regarding IP issues, although the IP division is not involved in the decisions on international expansion per se.

[1] We do not think this small sample can adequately reflect the overall trend of decision-making of Japanese firms. However, we expect that this result can provide a rough sketch of the relation between IP-related issues and FDI. Note that we will conduct a large-scale survey next year and will confirm that this trend can be generalised.

Figure 5.1: Involvement of IP Department (N=9)



3. Factors Considered Ex Ante and Problems Faced Ex Post

What priorities are set in the decision-making regarding overseas expansion depends on the object and the mode of expansion. According to the interview survey, most companies did not consider IP to be an important factor for international expansion. Especially in the case of Company P, the IP sector had only limited involvement in the decision on expansion, whilst they seek highly skilled local staff. The interview survey suggests that Japanese firms tend to recognise the importance of IP-related issues only when their local subsidiaries have been established.

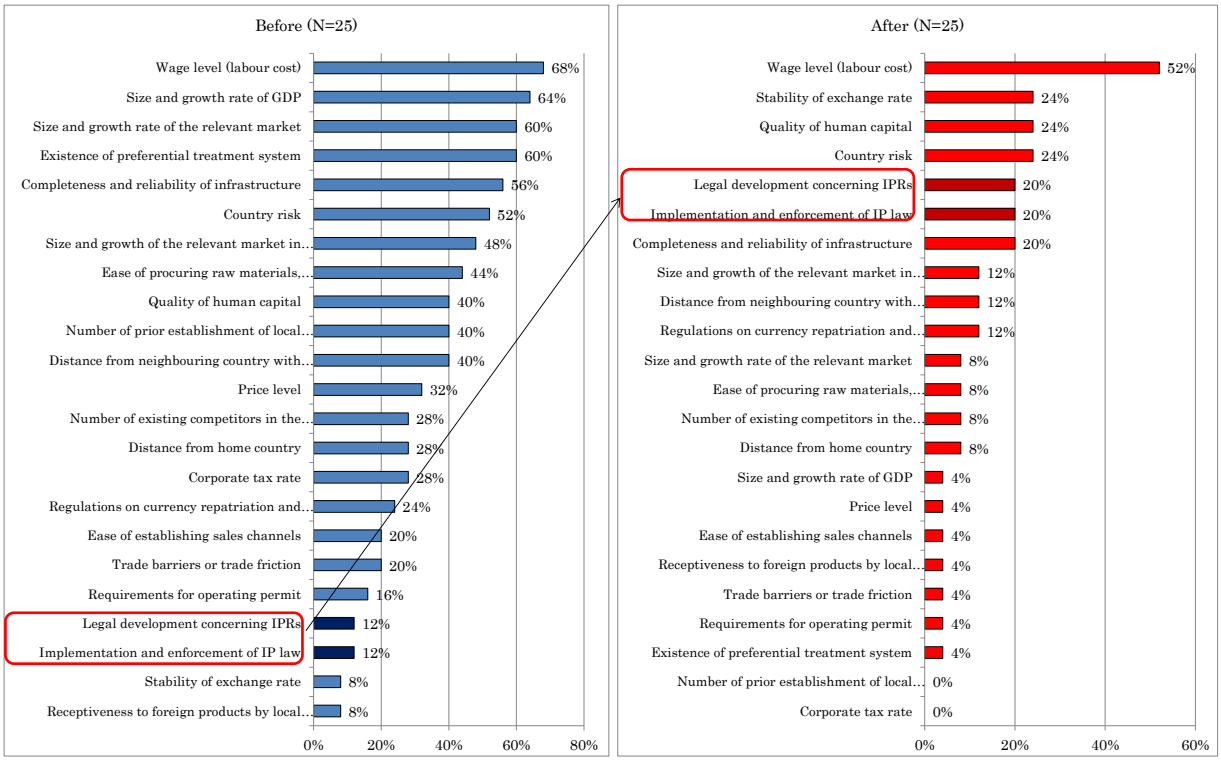
Figure 5.2 compares the share of the firms that consider each issue before expanding to ASEAN countries with that dealing with this issue only after establishment of the subsidiary. The left-hand side of the figure, which depicts the factors before expansion, shows that the major factors being considered are cost-related and market-related factors—'Wage level (labour cost),' 'Size and growth rate of GDP,' and 'Size and growth rate of the relevant market'. IP-related factors—'Level of legal development concerning intellectual property rights' and 'Level of implementation and enforcement of IP law'—are considered less before expansion. The right-hand side of the figure shows that once a new subsidiary has been established, IP-related factors are perceived as major issues. These results support the interview survey suggested.

Moreover, Figures 5.1 and 5.2 and the interview surveys suggest that some of the companies get to grips with IP-related matters if and when they encounter concrete problems once they have expanded to ASEAN countries. On the other hand, most companies replied

that they find it difficult to research the details about IP systems and conditions in ASEAN countries in advance, and that the costs of such research, including translation costs, are quite high. Such issues are very much related to the current conditions in ASEAN countries, with their different languages, different application standards and different examination standards, all of which impose high costs and means that take much time to obtain IPR.

The interview survey tells us that companies attach great importance to (1) improvement of information infrastructure such as establishment of an IPR database, (2) joining of international treaties, and (3) harmonisation of the IP system and increase of examination quality through work-sharing. Such efforts would increase the predictability of IPR protection and reduce the cost of advance research, which could attract investment to ASEAN.

Figure 5.2: Factors Considered Before and After Expansion to ASEAN



4. IP-Related Factors Considered

Figures 5.3 and 5.4 show how significant Japanese companies consider IP-related factors before and after expansion, respectively. The numbers are average scores given by the firms to each factor on a scale of 1 to 5.

First, at the ex-ante decision stage, each score is relatively low: all factors except technology know-how protection score less than 2.5. Low IP awareness in ASEAN countries can be due to the low reliance on IPR as suggested by Companies H and K. The interview survey also provides some clues regarding the relatively low importance of patent protection compared with know-how protection. For example, the reasons companies do not rely on patent protection are:

(1) Seeking a patent is too expensive and takes too much time.

(2) The level of technology of domestic companies is not so high that possible infringement is a problem.

(3) Their competitors are not domestic companies in ASEAN countries.

(4) As some of the countries do not carry out their R&D activities in ASEAN countries, they do not need to protect their technologies.

The first reason could suggest that relying on know-how protection is more beneficial than patents in terms of cost performance.

At the ex-post stage, after expansion, however, the scores for patent, trademark, design patent, and trade secret are higher than 2.5. Large differences between the ex-ante and ex-post scores could reflect the fact that it is not until firms start their business in the target country that they realise the difficulties with IP-related matters. Especially, trademark and trade secret are major problems facing local subsidiaries of Japanese firms after expanding to ASEAN countries. The results of the interview survey suggest that most companies think that the impact of counterfeit products is serious and they need to protect their trademark. Company N recognised that counterfeit goods are often related to IPR infringement, especially trademark infringement, at the early stages of the IP system. Also, quite a few companies replied that IP awareness of the local people is very low and that these people do not recognise that selling counterfeit goods is illegal or bad. Responding to another aspect of the above problem, Company F replied that counterfeit products supplied by Chinese companies are a major problem because those companies sell counterfeit products in other countries before original products made by Company F are sold. The company said trademarks and design patents are not sufficient to address this problem.

Figure 5.3: Consideration of the IP System Before Establishing Subsidiaries

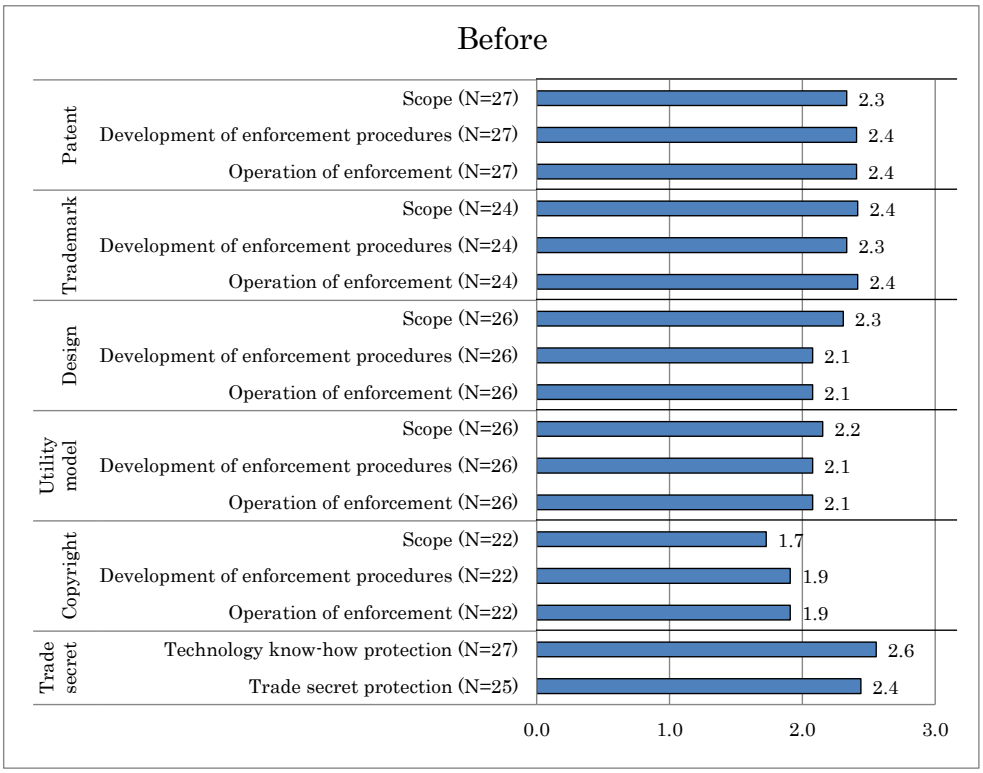
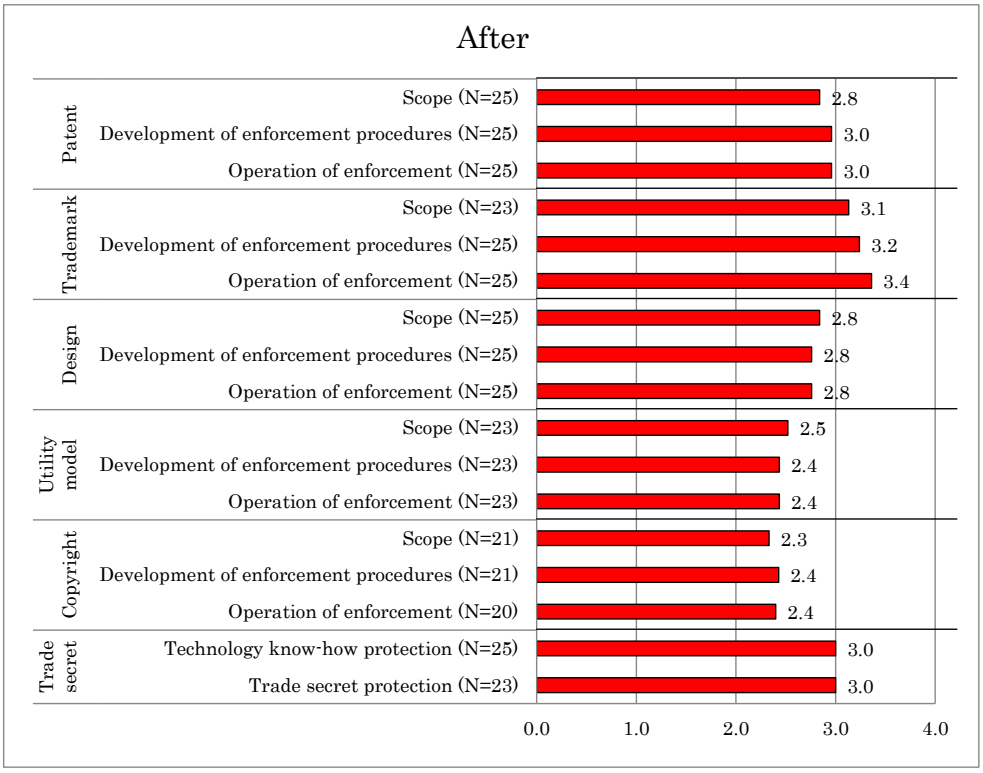


Figure 5.4: Consideration of the IP System After Establishing Subsidiaries



5. Specific Matters Concerning IPR

This subsection analyses the importance of the specific matters of each IPR. Figure 5.5 shows how significant the firms consider the specific matters on patent right to be for their expansion decisions. The length of each bar measures the share of the firms that recognise it as a factor of concern. The blue bar is for the ex-ante decision stage and the red bar is for the ex-post stage.

We found that, at both stages, cost of patenting and pending period are major factors of concern. This result suggests that reducing the examination period and the cost of patenting, for example, by increasing the number of examiners and cooperating with other patent offices, can increase the usability of the patent system. Company H replied that obtaining a patent is of little use as the prosecution timeline is too long in relation to the short life cycle of their products (transportation machines). Company D, too, replied that the prosecution timeline is too long, caused by the small number of examiners and the rapid increase in patent applications in ASEAN countries; in addition, the cost of applying for and maintaining IPR in Thailand is extraordinarily high. The acceptable timeline is about two years, which is typical in most countries, but the actual timeline often exceeds four years. As Companies A and K reported, the timeline is very long, usually more than 10 years, especially in Indonesia and Thailand. As for the cost, Company M reported that the cost of using a local agent increased by about 56 percent over the past eight years.

We also found that membership of international patent law treaties is an important factor of concern. Figure 5.5 shows that in deciding to expand, 'Patent term', 'Patent injunctions', and 'Patent damages' are strongly considered, whilst after establishment, 'Patent invalidation proceedings' is an important issue. These results suggest that the convenience of obtaining a patent in multiple countries and the effectiveness of enforcement are important matters in deciding on expansion to ASEAN countries.

It is also worth noting that some firms attach great importance to 'Employers' duty in employee invention'. This may reflect a recent increase in the establishment of R&D bases in ASEAN countries. Furthermore, according to our interview results, most companies face a problem of poor infrastructure of IP databases, which makes it difficult to research IP in ASEAN countries whilst the cost of translation of detailed information is very high. An improvement of the information infrastructure could contribute to a decrease in business risk in ASEAN countries.

Figure 5.5: Patent-Related Issues

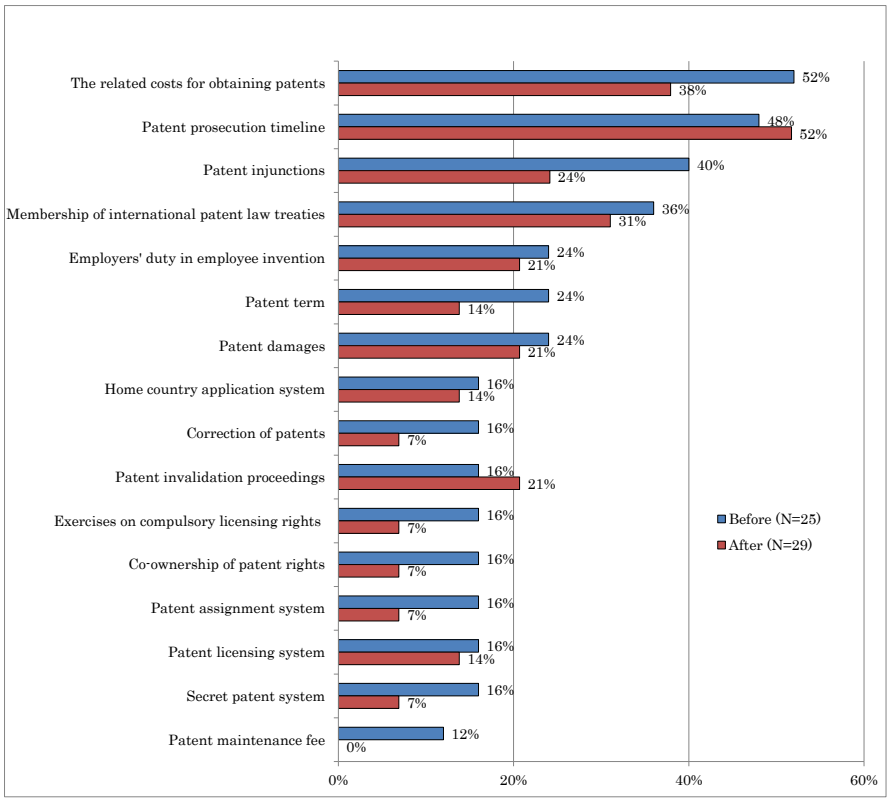


Figure 5.6 shows the share of firms considering specific matters regarding trademark. Similar to patents, firms are concerned about the 'Costs of obtaining trademark' at both stages, whilst 'Membership of international trademark law treaties' is the most important issue after expanding to ASEAN. The treaty in question is the Madrid Protocol. Of the ASEAN countries, Viet Nam and the Philippines are member states of the Protocol. Moreover, before expansion, trademark protection period and injunction were major factors considered by the firms, which is similar to the result regarding patent.

The results of the interview survey suggest that many companies are concerned about the high cost of obtaining a wide range of trademarks, since plural categories of trademarks are not allowed in ASEAN countries. For example, Company G replied that the examination standard varies depending on the examiners in Indonesia, and that reversing usurped trademarks involves high costs. And in Thailand, Company I found it difficult to get trademark protection as the examination standard is too high.

According to the interview survey, on average the acceptable cost of obtaining a trademark is nearly 60 percent of the actual cost. In Indonesia the actual cost is about twice as high as the acceptable cost; in Thailand, according to one response, the actual cost is five times as high as the acceptable cost. As for the pending period, the acceptable timeline is

about 12 months regardless of country, but the average actual length of the examination period is about 17 months.

We found that, specific to trademark-related issues, 'Types of trademark' is considered an important matter before expansion. 'Rescission of trademark registration based on non-use' is also perceived as an ex-post problem, which suggests the importance to firms of making the system function effectively in terms of protecting their important business brands.

Figure 5.6: Trademark-Related Issues

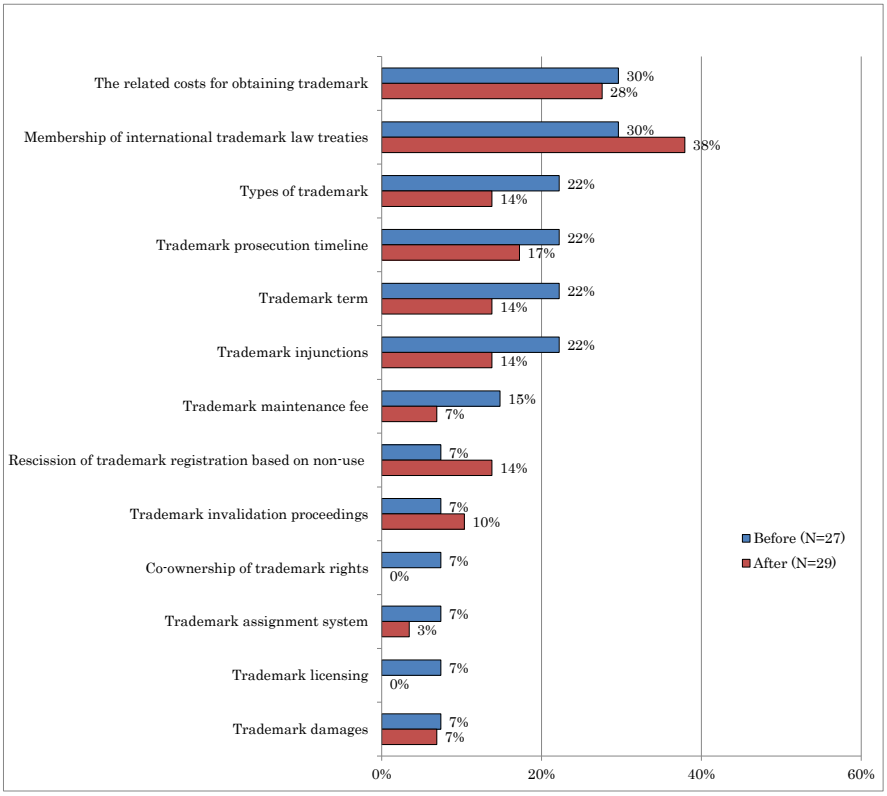


Figure 5.7 gives an overview of issues related to design patent. Overall, design patent is the second largest matter of concern amongst IPR, after patents, for Japanese companies expanding to ASEAN countries.

Similar to patent and trademark, both before and after expansion, firms gave strong consideration to 'Costs for obtaining design patents' and 'Design patent prosecution timeline'. According to the interview survey, six companies out of eight respondents replied that the acceptable cost for seeking a design patent is 50,000 yen, whereas the actual cost is about 113,900 yen on average. As for the timeline, eight firms out of nine respondents replied that an acceptable length of time is 12 months. But in Thailand, Companies A and D reported that the actual timeline exceeds 48 months.

Moreover, we found that, before establishment, 'Design patent injunction' is considered highly important, whilst after expansion 'Design patent term' and 'Design patent protection for a part of products' are recognised as important problems for companies expanding to ASEAN.

Figure 5.7: Design Patent–Related Issues

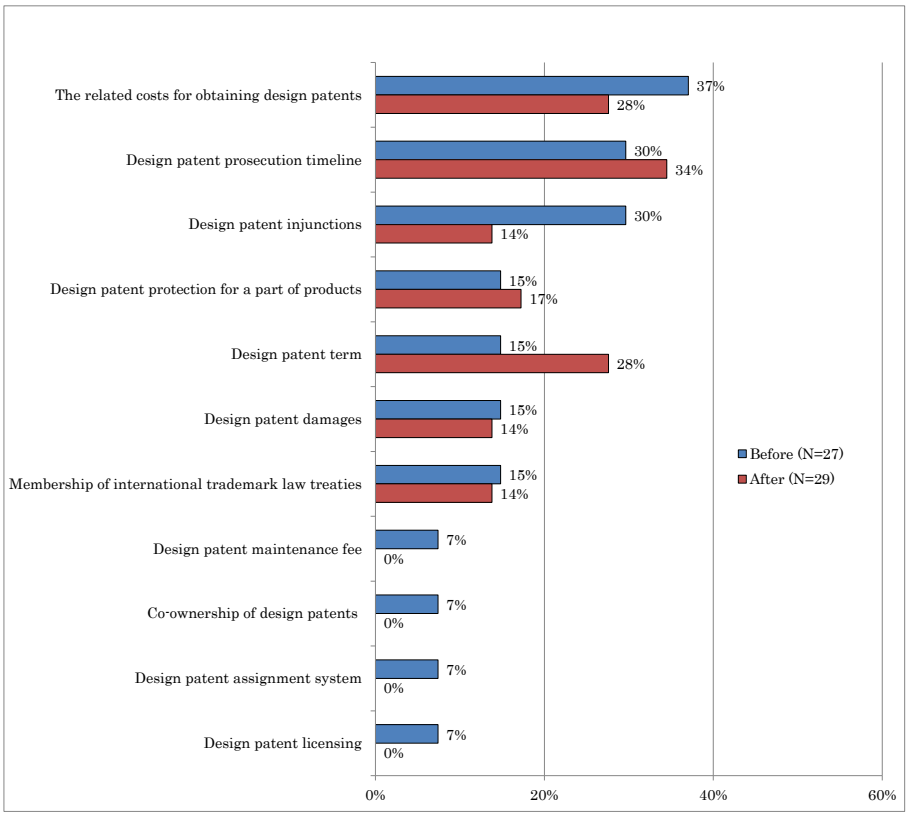


Figure 5.8 shows that the average importance of utility model patent–related issues is relatively low compared with patent, trademark, and design patents. This might be because firms are less likely to rely on the utility model in ASEAN countries and we cannot rule out the possibility that firms do not in fact face the problem even if they do rely on the utility model. We expect that the former is the case as, according to the interview survey, respondents rely less on the utility model. The results show that injunctions, damages, and protection term are of relatively high importance.

Figure 5.8: Utility Model Patent–Related Issues

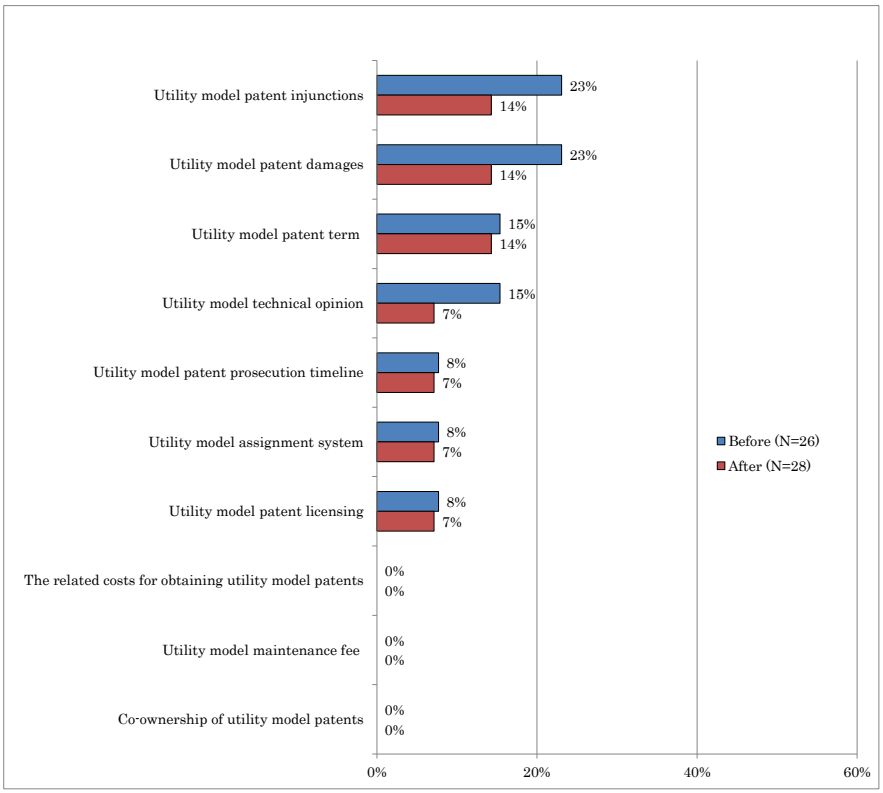
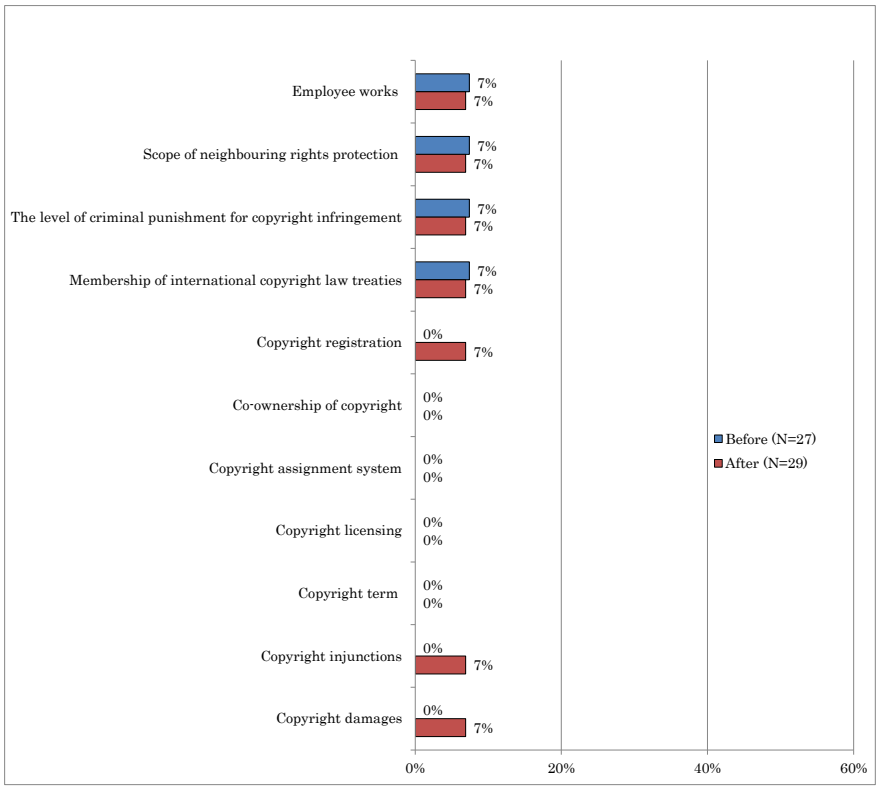


Figure 5.9 provides an overview of issues related to copyright. We can see that the respondents do not focus much on copyright, as the sample is limited to the manufacturing industry. Only two subsidiaries out of our sample of 27 or 29 recognised the importance of certain copyright-related issues.

Lastly, Figure 5.10 gives an overview of issues concerning IP-related systems. Firms are likely to consider know-how and trade secret issues in their expansion decisions. These issues are also the largest problems companies are faced with after expansion. Moreover, the ‘Contractor registration system’ is considerd highly important at the ex-ante stage. These results suggest that disclosure of a contract can sometimes conflict with the importance of secrecy, especially when the contract includes trade secrets. Related to the trade secret issue, some firms face a problem of knowledge spillover associated with labour mobility, as reflected in ‘State of headhunting and an employee’s duty to refrain from competition’.

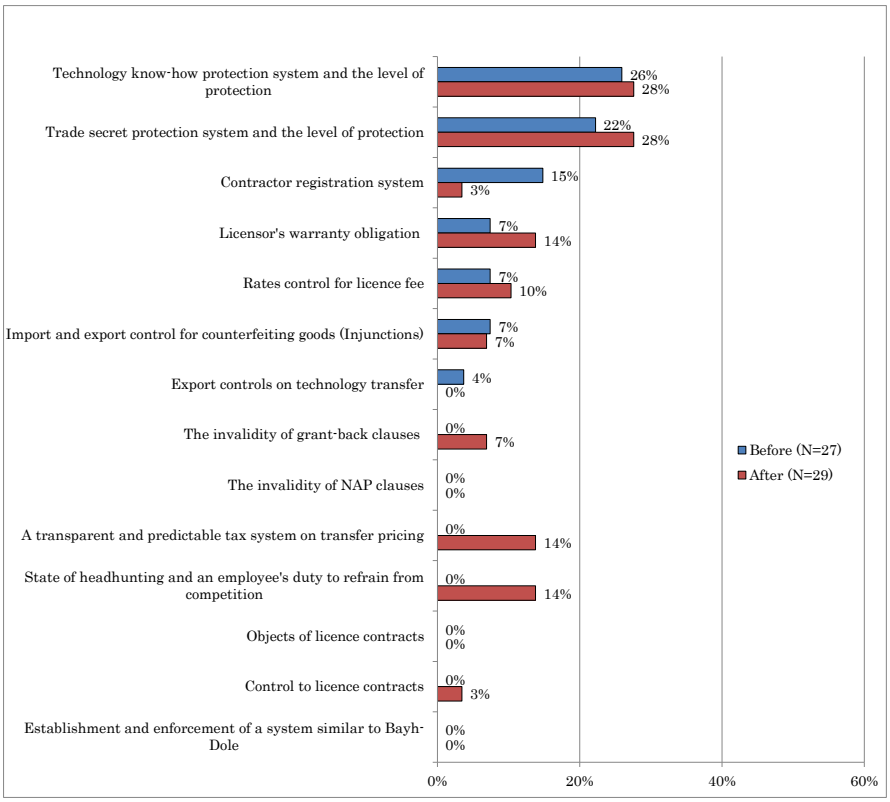
Figure 5.9: Copyright-Related Issues



Licence-related issues, such as ‘Licensor's warranty obligation’ and ‘Rates control for licence fee’, are important problems respondents are faced with after expansion. Furthermore, ‘The invalidity of grant-back clauses’ and ‘transparent and predictable tax system on transfer pricing’ are also accorded relative high importance. These results could indicate the importance of system design for ensuring a smooth licence contract with local subsidiaries.

Some companies reported concerns about translation costs: for example, in Indonesia firms are required to create an international contract in the local language, and the Government of Viet Nam requests firms to register the licence contract in the local language.

Figure 5.10: Issues Concerning IP-Related Systems



6. Relation between Reshoring and Technology Protection: Further Evidence

The difference between ex-ante and ex-post perception of IP-related issues can be confirmed by using more objective data, other than those of our survey. The data source used in this subsection is a commercial database called 'Overseas Activities of Japanese Companies' provided by Toyo Keizai. This data source contains detailed information on the overseas subsidiaries of Japanese firms, covering about 20,000 to 30,000 subsidiaries every year since 1990.

Figure 5.11 shows the changes in the number of new establishments, the number of withdrawals, and the number of existing subsidiaries in ASEAN countries[2]. The number of

2 We define the year of withdrawal as the last year the sample firms appear in the database, as the information on the year of withdrawal is not included in the database, whereas it does collect the establishment year. This can overestimate the number of withdrawals. Moreover, the number of new establishments sometimes does not include the number of the firms newly acquired as mentioned in footnote 3, which may result in an underestimation. Therefore, comparing these two absolute numbers might be meaningless. However, these indices would reflect the time series trend, and the difference between the number of new establishments and the number of withdrawals has been observed to have narrowed after 2000.

existing subsidiaries shows a growing long-term trend[3]. Especially in the 1990s, the number of new establishments was considerably higher than the number of withdrawals. However, the number of withdrawals increased during the 1990s and exceeded the number of establishments in 1999. Since 2000, the gap between establishment and withdrawals has narrowed considerably. One reason for this decreasing difference might be heightened concern about the risk of technology drain, whilst the most important factor should be the deterioration of business environment. The questionnaire survey revealed that several firms are concerned about the protection of technology know-how and trade secrets after expanding to ASEAN.

Figure 5.11: Trend of New Establishments and Withdrawals in ASEAN

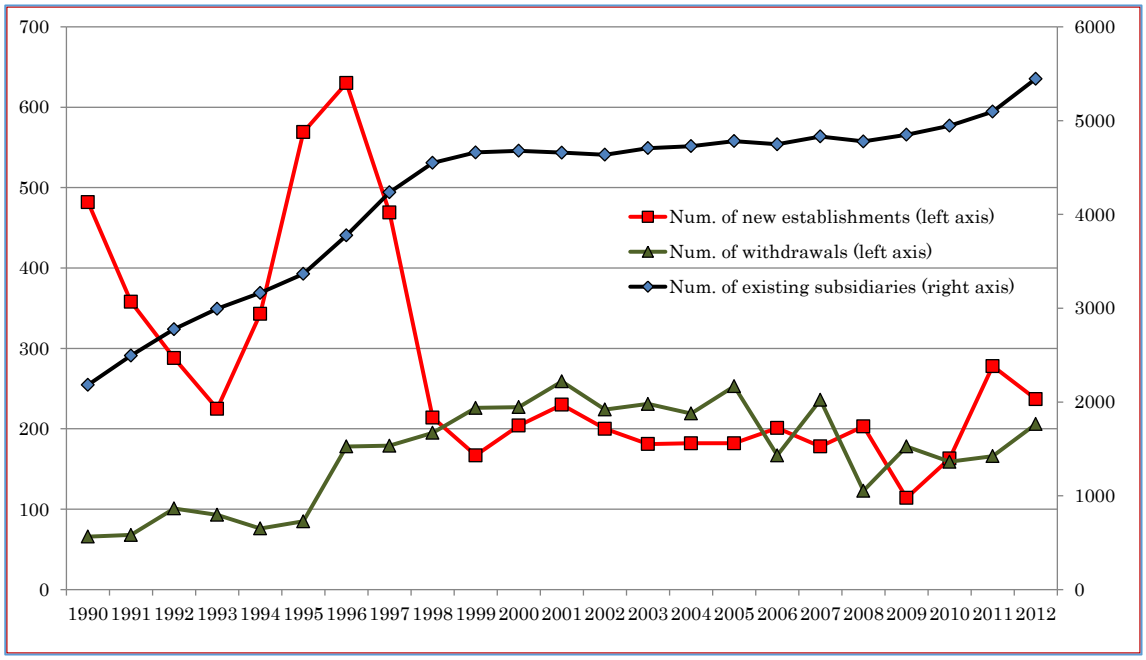


Figure 5.2 shows that the Japanese firms in our survey based their overseas expansion decisions on market- and cost-related factors. Figure 5.12 shows the trend in average sales of existing subsidiaries in ASEAN countries and the number of new establishments, taking a logarithm of sales. In the 1990s, the two line graphs show a similar trend. Considering the

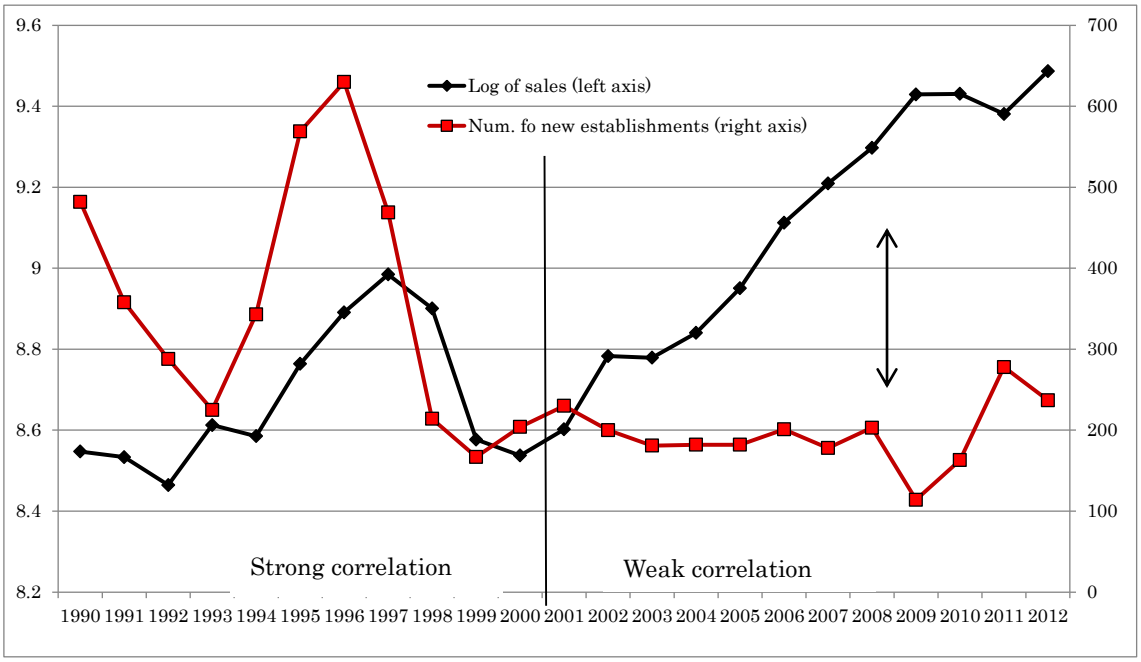
[3] Note that the number of existing subsidiaries includes the number of firms that has been newly covered by the database. For example, when the Japanese companies acquire a local firm established before 1990, it increases the number of existing companies at the time of acquisition, but does not increase the number of new establishments. Therefore, there is a case that the number of existing companies increases without an increase in the number of new establishments. This means that the change in the number of existing subsidiaries does not necessarily match the difference in the number of new establishments and the number of withdrawals.

time lag between the date of decision-making and the date of actual expansion, this suggests that the scale of market significantly affects firms' overseas expansion decisions in the 1990s, which is consistent with the results of our questionnaire survey.

The number of new establishments, however, does not increase as much as sales growth after 2000, which means the correlation between these two indices has been weakening. This suggests that the importance of other determinants, such as labour cost, country risk, or risk of technology leakage, increased after 2000.

Especially, as shown in the previous subsection, Japanese firms are greatly concerned about trade secret–related issues and trademark-related issues. Those results suggest that counterfeit goods are a serious issue when firms have a sales base, and technology drain is important when firms have a manufacturing base. Moreover, previous results show that such considerations are particularly strong after firms expand to ASEAN, which may lead to increased withdrawals. We believe that the weakness of technology know-how and trademark protection may be a key reason for the number of withdrawals not showing a decreasing trend despite an observed increase in sales after 2000.

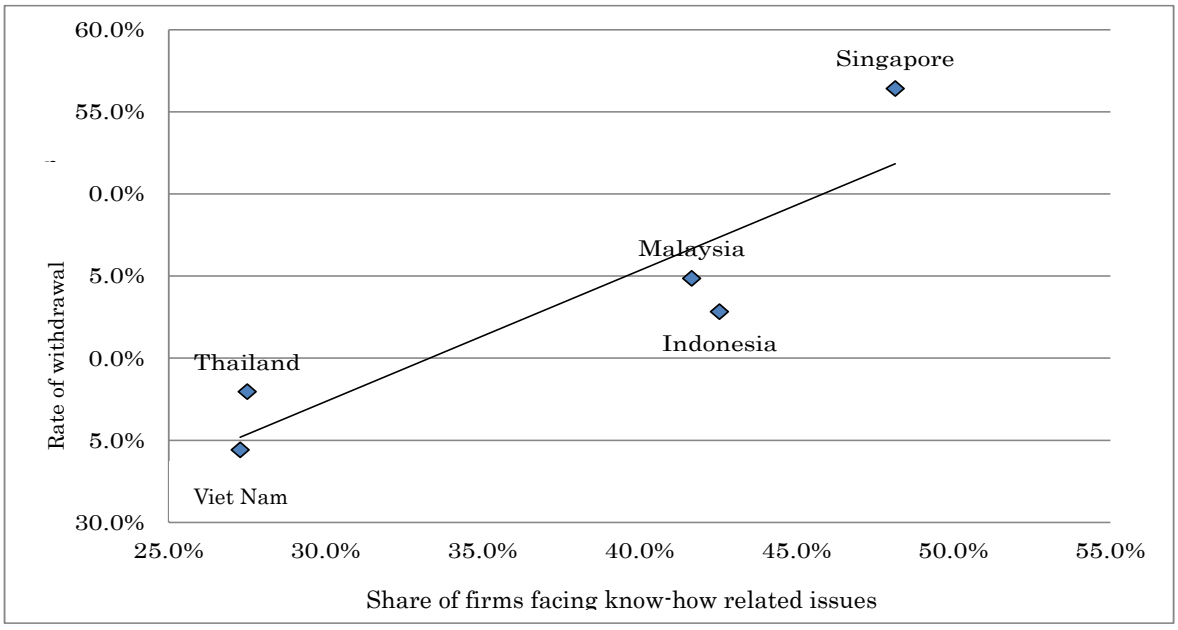
Figure 5.12: Average Sales of Existing Subsidiaries in ASEAN



Related to this point, Figure 5.13 shows the relationship between the frequency of withdrawals and the importance of know-how protection. In this scatter diagram, the horizontal axis measures the share of firms facing the issue of technology know-how protection in ASEAN, part of which is shown in Figure 4-7, based on the questionnaire survey. The vertical axis measures the share of firms that had withdrawn by 2013 amongst the firms established between 1990 and 1995 in ASEAN. We can see that these two indices are positively correlated. This result could imply that the more firms are concerned about technology drain, they more likely they are to decide to withdraw.

Of course, this small sample and simple comparison do not comprehensively capture the actual trend and causality. We are aware of the need for econometric analysis to control for the difference in the activity of subsidiaries, industry, and other determinants, and to account for endogeneity bias. Nevertheless, we believe the above results provide a rough sketch of the relation between IP-related issues and FDI in ASEAN countries. They suggest the importance for ASEAN countries to enhance IP protection, especially in terms of trademark and trade secret, thereby enabling them to reduce the reshoring of foreign companies.

Figure 5.13: Correlation between the Withdrawal Rate and Importance of Know-how-related Issues



7. Summary of the Survey

We found that Japanese companies were less concerned about IP-related issues before they expanded to ASEAN countries. The survey results show that the main determinants of overseas expansion are the scale of market and labour costs in the host countries. However, only when companies have established a business do they recognise the problems concerning the IP system. Trademark and trade secret, in particular, are major problems faced by local subsidiaries. In the interviews, some companies pointed out that damage caused by counterfeit goods is considerable. Improving the enforcement of trademark might contribute to solving this problem, but some companies consider low IP awareness in the host country to be the more important cause. Moreover, our interview survey reveals that the firms' relatively low reliance on patent is due to the low technological ability of local competitors, which increases the relative advantage of know-how protection.

Looking into the specific problems of the trademark system, we found that high cost, including translation cost and the long time it takes to obtain a trademark, is the common problem of local subsidiaries. According to the interview survey, the acceptable cost is just below 60 percent of the average actual cost, and the acceptable length of time to obtain a trademark should be about 12 months. The questionnaire survey showed that membership of international trademark law treaties is another area of great concern for local subsidiaries in ASEAN countries. And many firms pointed to the poor infrastructure of the IP database, which constitutes an obstacle when seeking IPR. These findings suggest that reducing the cost for IPR protection, e.g. by joining the relevant international treaties and developing the IP database, contributes to the business success of local subsidiaries, which should help make ASEAN countries more attractive as destinations for FDI.

As for one major concern—trade secret and technology know-how protection—the results show that quite a few firms are worried about knowledge leakage associated with labour mobility. Moreover, we found that more subsidiaries withdraw from those countries where larger numbers of firms are facing problems with know-how protection. These findings suggest that strong protection of trade secrets and know-how can prevent the reshoring of operating companies.

Thus, we can conclude that enhancing IP protection, especially in terms of trademark and trade secret, improves the business environment of the subsidiaries and should attract more FDI.

CHAPTER 6

Chinese Companies

Chinese researchers interviewed nine Chinese companies that established or had planned to establish subsidiaries in ASEAN countries in April and May of 2014. The firms in question are multinational companies (MNCs) in different industries, including three in electric devices, one in transportation machines, three in chemicals, and two in foods. All the companies have experienced some problems related to intellectual property (IP) in ASEAN countries, and have suggestions for the improvement of the IP systems in ASEAN countries.

1. Profile of the Companies Interviewed

1.1. Electric devices

Electric A is a large company dealing with telecommunication devices, including development, manufacturing, and sale of mobile phones, Internet devices, and related software. It established R&D institutes in China, North America, Europe, India, and Brazil, and obtained more than 60,000 patents all over the world.

Electric A has subsidiaries in Singapore, Malaysia, Thailand, and Indonesia. It registered its main trademark and other trademarks in most ASEAN countries, and obtained about 50 patents in Indonesia, Singapore, Thailand, Malaysia, Philippines, and Viet Nam.

Electric B is another large company in telecommunication devices, including development, manufacturing, and sale of mobile phones, Internet devices, and related software. It also established many R&D institutes both in China and abroad, and obtained more than 5,000 patents in China and abroad.

Electric B has subsidiaries in Singapore, Thailand, Indonesia, Malaysia, Viet Nam, and Myanmar. The company registered its main trademark and other trademarks in ASEAN countries, and obtained about 300 patents in Singapore, Indonesia, Thailand, Malaysia, and Viet Nam.

Electric C is a sales company of electric devices, such as electric machines, metal instruments, and mobile phones. It organised more than 1,000 small shops under its banner, which sell or send various electric devices and related parts. Electric C has subsidiaries in

the US, the EU, and Malaysia. The company has organised dozen missions to visit ASEAN countries to find business opportunities there, and will establish more subsidiaries in ASEAN countries in future. Electric C has registered its main trademark in most ASEAN countries, but has no patent there.

1.2. Transportation machines

Transportation A is an MNC engaged in the development, manufacturing, and sale of a range of transportation vehicles. The company has sales subsidiaries in many countries, and has obtained over 8,000 patents both in China and abroad.

Transportation A has registered its main trademarks and some other trademarks in most ASEAN countries, and obtained about 50 design patents in Singapore, Thailand, Indonesia, and Viet Nam. The company has contracted agents in Singapore and Viet Nam to sell its vehicles or provide parts for its vehicles, and is planning to establish several more subsidiaries in ASEAN countries to sell its transportation vehicles.

1.3. Chemicals

Chemical A is a giant MNC engaged in the export and import of chemical products, and is now involved in chemicals, energy, agriculture, and finance. The company has several subsidiaries in Singapore and Thailand, and a large number of contracted agents in other ASEAN countries.

Chemical A registered its main trademark and some other trademarks all over the world, including in ASEAN countries. The company obtained several thousand patents both in China and abroad, including several patents in Thailand, Viet Nam, Philippines, and Singapore.

Chemical B is a large MNC in oil and chemicals, also involved in chemical devices, electric devices, and information technology. The researchers interviewed two of its subsidiaries—the Research Institute of Petroleum Processing and the Beijing Research Institute of Chemical Industry. Its Institute One is responsible for lubricant oil and catalyser, and other chemical products, and Institute Two deals with catalysers and oil refining devices.

Chemical B has several subsidiaries in Thailand and Malaysia, and registered its main trademark worldwide, including in ASEAN countries. The company has obtained more than 5,000 patents both in China and abroad, including about 130 patents in Singapore, Thailand, Indonesia, Malaysia, and Viet Nam.

1.4. Foods

Food A is a medium-sized company engaged in the export and import of fruits, rice, garlic, ginger, and other agriculture products. It has a business presence in North America, Europe, Australia, and New Zealand. Food A has subsidiaries in Thailand and Viet Nam, and many contracted agents in other ASEAN countries.

Food A registered its main trademarks and other trademarks in many countries, including Thailand, Viet Nam, Cambodia, and Malaysia, but it has no patent in China or other foreign countries. It has organised many farmers and owners of small shops to visit ASEAN countries to find business opportunities there.

Food B is a large company engaged in agriculture, animal husbandry, and food processing. Because of the characteristics of the food industry, most of its business has been in China. In the past five years, however, Food B expanded its business into ASEAN countries, especially Viet Nam, where it established three subsidiaries to process fodder, raise livestock, and process food.

Food B registered its main trademarks and some other trademarks in Viet Nam and Thailand. It has more than 100 patents in China, but has no patent in any ASEAN country. However, it has managed its trade secret well, including its recipes for various fodders and foods.

2. Determinants of Establishing a New Subsidiary in ASEAN and the Issues Faced After Establishment

The most important factors that Chinese companies considered in deciding on the establishment of a new subsidiary in ASEAN countries are trade barriers or trade friction, and country risk (political risk, religious stability risk, and disaster risk). These factors are closely related to political stability, religious beliefs, and ethnic composition in ASEAN countries, which are of concern to most Chinese companies. For example, Chinese companies have been seriously concerned about political instability in Thailand in recent years and are reluctant to establish new subsidiaries or invest further capital there. Some Chinese companies are worried about anti-Chinese attitudes in Indonesia and other ASEAN countries, and hesitate to establish subsidiaries or invest there.

Other factors, such as the ease of establishing sales channels and the size and growth

rate of the relevant market, are also accorded great importance by Chinese companies in deciding on establishing new subsidiaries in ASEAN countries. For example, Electric A and B established their subsidiaries in ASEAN countries to sell their mobile phones and other communication devices. Chemical A and B licensed their oil refinery technology and chemical technology to local companies in Thailand, Malaysia, and Singapore. All the Chinese companies interviewed have been successful in ASEAN countries due to the size and growth of markets there.

Other factors considered important by Chinese companies are the 'number of existing competitors in the relevant market' and the 'existence of preferential treatment system'. The former is accorded high importance by Electric A and B, and Chemical A and B. Chinese companies also attach high importance to the existence of preferential treatment system, such as lower corporate tax rates, ease of obtaining operating permits, and cheaper land, when deciding on setting up subsidiaries in ASEAN countries. For Food A and Food B, preferential treatment is the main factor considered in deciding on expansion of their business into Thailand, Viet Nam, and Cambodia.

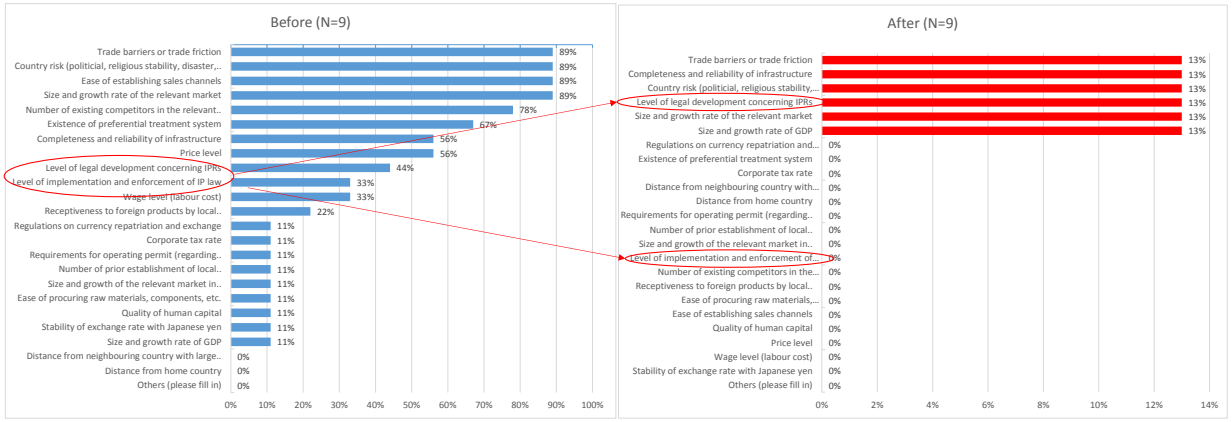
Based on the survey, Chinese companies considered the following three factors to a certain extent—completeness and reliability of infrastructure, price level, wage level （labour cost). For example, Electric A and B, and Chemical A and B accord high importance to the completeness and reliability of infrastructure, as they are engaged in industries that are highly dependent on the quality of infrastructure. Lower price and wage levels are important factors for Chinese companies. Indeed, all Chinese companies benefit from low prices and cheap labour in the relevant countries.

Factors generally not given high scores by respondents in the survey include receptiveness of local customers to foreign products, corporate tax rate, requirements for operating permit, regulations on currency repatriation and exchange, number of prior establishments of local subsidiaries, size and growth rate of the relevant market, ease of procuring raw materials and components, quality of human capital, stability of exchange rate with renminbi, and size and growth rate of GDP. However, Food A and B considered corporate tax rate and requirements for operating permit to be important factors in deciding on establishing subsidiaries in ASEAN countries. Moreover, Transportation A, Electric A, and Electric B regarded the quality of human capital as a key factor when deciding on establishing R&D institutes in a target ASEAN country.

In contrast, factors such as trade barriers or trade friction, country risk, ease of

establishing sales channels, the size and growth rate of the relevant market, level of legal development concerning IPR, and level of the implementation and enforcement of IP laws are not important factors for Chinese companies in deciding on establishing subsidiaries in ASEAN countries. Most Chinese companies that expanded into ASEAN did not carefully consider the protection level of IP and the related enforcement ability in ASEAN countries. For example, they did not consider whether the targeted country adhered to the Madrid Protocol or has the ability to effectively enforce IPRs, such as a trademark.

Figure 6.1: Determinants for Expansion to ASEAN Countries by Chinese Companies



3. Factors of IPR and IP System Considered by Chinese Companies in Deciding on the Establishment of a Subsidiary in ASEAN Countries

Although the Chinese companies interviewed did not regard ‘the level of legal development concerning IPR’ and ‘the level of the implementation and enforcement of IP laws IPR’ in ASEAN countries as the most important factors for establishing subsidiaries there, they did pay a certain degree of attention to those factors before and after investment, compared with other factors (see Figure 6.1). In light of their past experience in China and foreign countries, the Chinese companies interviewed did register their trademarks either in all ASEAN countries, in the countries where they established their subsidiaries, or where they sold their products. For example, Electric A and Electric B, Transportation A, and Chemical A and Chemical B registered their main trademarks in all ASEAN countries where they conduct business. Also, Food A and Food B, and Electric C registered their main trademarks in the countries where they established their subsidiaries or where they conduct

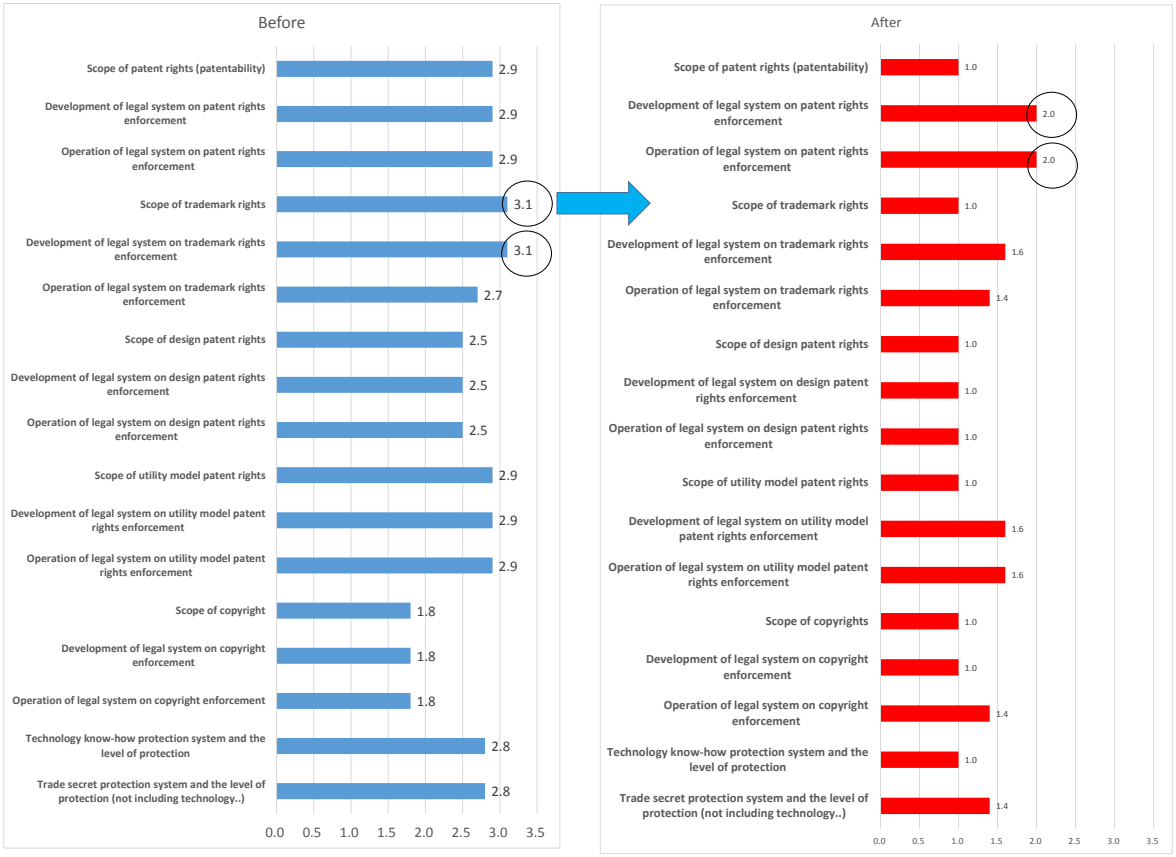
business.

Some of the Chinese companies even paid a certain degree of attention to patents, including invention patents, utility model patents, and design patents. For example, Chemical A and Chemical B, based on their past experiences in the US, the EU, Japan, and other countries, followed the formula 'patents, products, and market' (if you sell products and a market in a given country, you must have some patents there), and applied for and obtained some invention patents in certain ASEAN countries. Electric A and Electric B followed the principle that in case of a commercial negotiation or a dispute, one patent is better than no patent, and they therefore applied for and obtained some invention patents in certain ASEAN countries. In line with this principle, Transportation A too applied for and obtained some design patents for mobile vehicles in Singapore, Indonesia, Malaysia, and Thailand because it sells products in those countries. Clearly, the companies interviewed that are operating in the chemical and communications industry did consider their patent maps before establishing subsidiaries in ASEAN countries.

In addition to trademarks, invention patents, utility patents, and design patents, some of the Chinese companies were concerned about the protection of their trade secrets in ASEAN countries. For example, Chemical A and Chemical B, Electric A and Electric B, and Food B allow only their Chinese employees to know their trade secret. When it is impossible to confine the trade secret to Chinese employees, the companies will enter into a confidential contract with local employees or licensees to protect their trade secret. For example, when Chemical B licensed its oil refining technology to local companies, it entered into a confidential contract to require the licensee to protect its trade secret. In this respect, Chinese companies resorted to traditional measures to protect their trade secrets, and did not even have a plan to go to court to have their rights enforced.

The Chinese companies interviewed apparently did pay some degree of attention to their IPR before establishing a subsidiary in ASEAN countries. Their attention to IPR, from higher to lower importance accorded, runs from trademarks, invention patents, utility model patents, design patents, to trade secrets. However, the Chinese companies interviewed hardly mentioned copyrights in relation to ASEAN countries.

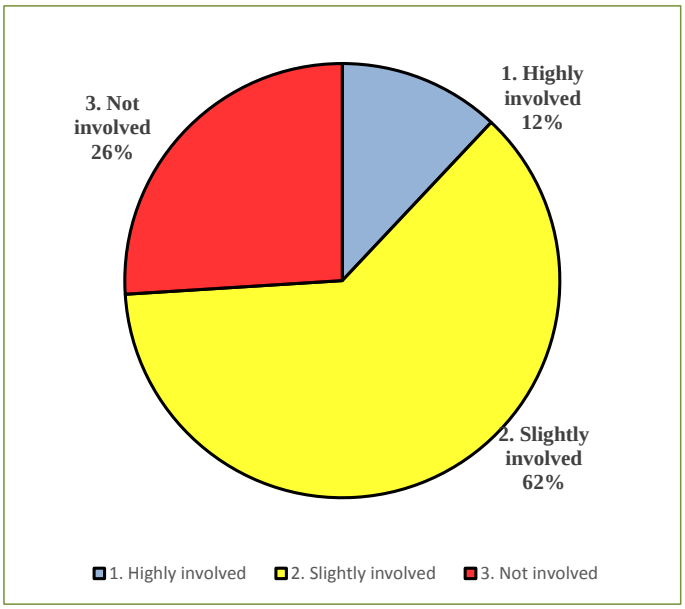
Figure 6.2: General Perception of IP-Related Factors



According to the interviews, some of the Chinese companies' IP departments were involved in the decisions to set up new subsidiaries in foreign countries, including ASEAN countries. This was the case for Chemical A and Chemical B, Electric A and Electric B, and Transportation A—all large MNCs involved in high technology. In the case of Electric C, Food A, and Food B, the personnel in charge of IP were not involved in the decision to establish a subsidiary. Food A does not even have any staff in charge of IP.

Although the Chinese companies interviewed did pay some degree of attention to their IPR when they decided to expand to ASEAN countries, they did not know in detail about the IP systems in those countries. For example, they did not know whether their target country had a utility model patent protection system, or whether a design would be protected by a patent law or a special law. Moreover, they were not clear whether their trademark right or trade secret could be enforced in case of an infringement in a certain country. It seems that they only considered the factors affecting IPR based on their experiences in China, the US, the EU, Japan, and other countries.

Figure 6.3: Involvement of IP Sectors



4. Problems Concerning IPR and IP System after Subsidiary Establishment

Although the Chinese companies interviewed did not pay enough attention to their IPR and the IP systems of ASEAN counties, they increasingly realised that the IPR and IP systems in ASEAN countries have been the crucial determinants of their business success or future development there. In fact, after the establishment of a subsidiary, the Chinese companies have to pay more attention to their IPR and the IP systems of ASEAN countries, especially to what extent their IPR could be enforced in those countries (see Figure 6.2).

The Chinese companies interviewed experienced a range of problems with their IPR in ASEAN countries. Their concerns, in decreasing order of importance, relate to trademark, patent, trade secret, design, copyright, and utility model. Some of the companies referred to other problems with the legal service relating to their patent application and trademark registration.

4.1. Patent

Patents are a crucial element for some of the Chinese companies interviewed, particularly those in the chemical industry and the communications industry. Accordingly, Chemical A and Chemical B followed the principle of 'patents, products, and market', and Electric A and Electric B followed the idea that if there is a commercial

negotiation or a dispute, one patent is better than no patent. They had their patent maps in ASEAN countries. Even Transportation A will apply for patents to protect their inventions for technology to use new energy. However, the companies responded that they are concerned about problems regarding prosecution and enforcement of patents.

According to Chemical A and Chemical B, when they first entered the ASEAN market in 1995, Thailand and Indonesia were not members of the Patent Cooperation Treaty (PCT), so if they applied for a patent to cover all ASEAN countries, they would apply for PCT patent and apply for separate patents in Thailand and Indonesia. With Indonesia's accession to the PCT in 1997 and Thailand's accession in 2009, applying for a PCT patent and entering into any national examination in ASEAN countries is no longer a problem for these companies.

The patent prosecution timeline was a serious problem for the Chinese companies when they applied for patents in ASEAN countries. For example, Chemical B submitted about 25 patent applications to the Thailand Patent Office in 2005 and 2006, but by 2014 had obtained only two grants. The examiners seemed to be waiting for the examination results of the USPTO or the European Patent Office. In cases where the US Patent Office and European Patent Office granted a patent for a specific application, the Thailand Patent Office granted the patent involved soon after. Chemical B had almost the same experience in Malaysia.

Furthermore, most Chinese companies interviewed were concerned about patent-related legal services in ASEAN countries. For example, if a Chinese company wants to apply for a patent in any ASEAN country, it must hire a local agent or cooperate with a local agency to handle the related affairs. But most of the agents targeted appeared not to be qualified to render the desired legal services, such as providing enough information about prior arts in the relevant technology field, and to prepare the documents required.

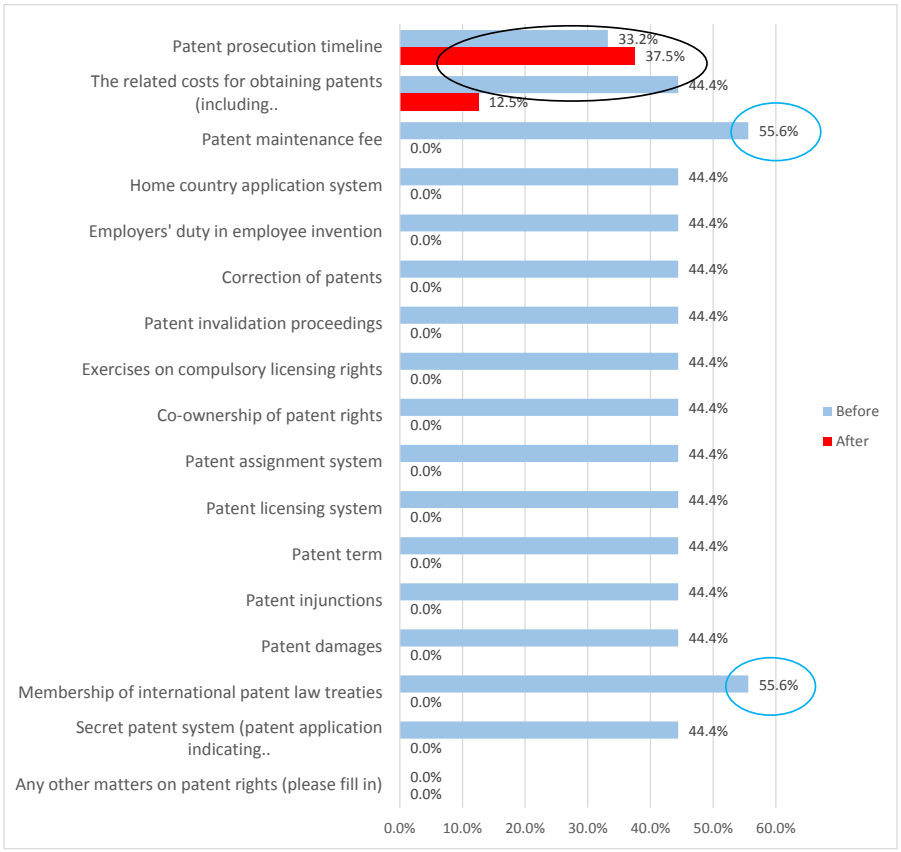
Based on patent application experiences, some Chinese companies suggested the patent offices in ASEAN countries, especially in Thailand, Malaysia, Indonesia, and Viet Nam establish a well-developed information system including relevant prior arts in the specified technology field, examination procedures, examination guidance and standards, and the current examination situation for a specific application. Such a well-developed information system would enable companies to have a clear overview of the patent situation and make their decisions on that basis.

Chemical A and Chemical B also suggested that harmonising patent examination systems across ASEAN countries is very important, especially to establish a mechanism to share patent information on prior art, application procedures, examination procedures, and

granting and maintaining procedures. In this respect, they suggested that the patent offices in ASEAN countries may learn from the patent examination information–sharing mechanism established by three IP offices (US, EU, Japan), or by five IP offices (US, EU, Japan, Korea, and China).

None of the Chinese companies interviewed reported any patent infringement disputes in ASEAN countries. According to Electric A and Electric B, and Chemical A and Chemical B, their patents in ASEAN countries are mainly for defensive purposes. Up to now, they believe it has not been easy for local firms to infringe patents in the communication and the chemical industries. Of course, they hope that if there are any patent infringements in future, they can get enough protection. That means that an effective enforcement system, including preliminary injunction, permanent injunction, and deterrent damage, is very important.

Figure 6.4: Situation of Invention Patents



4.2. Trademark

Operating according to the principle of ‘products, trademark, and market’, most Chinese companies registered their trademarks in ASEAN countries. For example, being large MNCs, Electric A and Electric B, Chemical A and Chemical B, and Transportation A registered their main trademarks in all ASEAN countries. As for medium-sized companies, Electric C, Food A, and Food B registered their main trademarks in the countries where they have business. Transportation A can register the model signs, such as B5, as trademarks in some ASEAN countries.

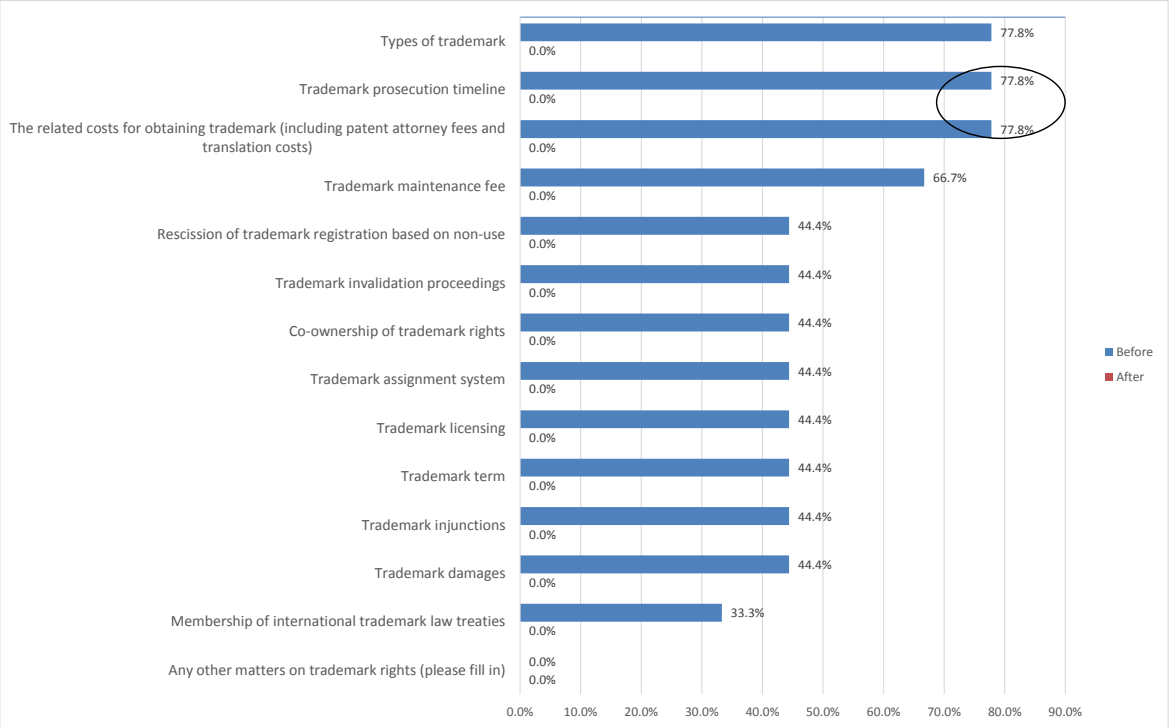
However, Chinese companies are concerned about registering their trademarks in ASEAN countries. The most important concern in this respect is that amongst ASEAN countries, only the Philippines and Viet Nam are members of the Madrid Protocol. This means that, although companies can use the Madrid Protocol to apply for trademark registration in the Philippines and Viet Nam, they must apply for trademark registration separately in other ASEAN countries. So, ASEAN countries should preferably harmonise their trademark registration system, as well as adhere to the Madrid Protocol.

Although most of the Chinese companies interviewed registered their trademarks in time in ASEAN countries, the main trademark of Transportation A was registered maliciously by others in the Philippines and in Thailand. During the opposition procedures, Transportation A managed to get back its trademark in the Philippines, but the procedure is still pending in Thailand. An opposition case seems to drag for a long time to be decided even if facts are clear and the evidence strong.

A trademark represents the good quality of a company’s related products and services. Electric A and Electric B are especially concerned about counterfeited goods entering their new markets because of the lack of effective border measures of ASEAN countries. Electric A and Electric B further pointed out that in recent years, counterfeiters have changed their tactics. For example, increasingly goods and their trademarks enter a country separately and are subsequently combined before being put in the market. The companies interviewed suggest that ASEAN deploy new strategies to curb counterfeiting of goods, including greater use of policing.

The Chinese companies interviewed have not experienced any court cases concerning trademark infringement, but they hope ASEAN countries would have effective trademark enforcement systems.

Figure 6.5: Situation of Trademark



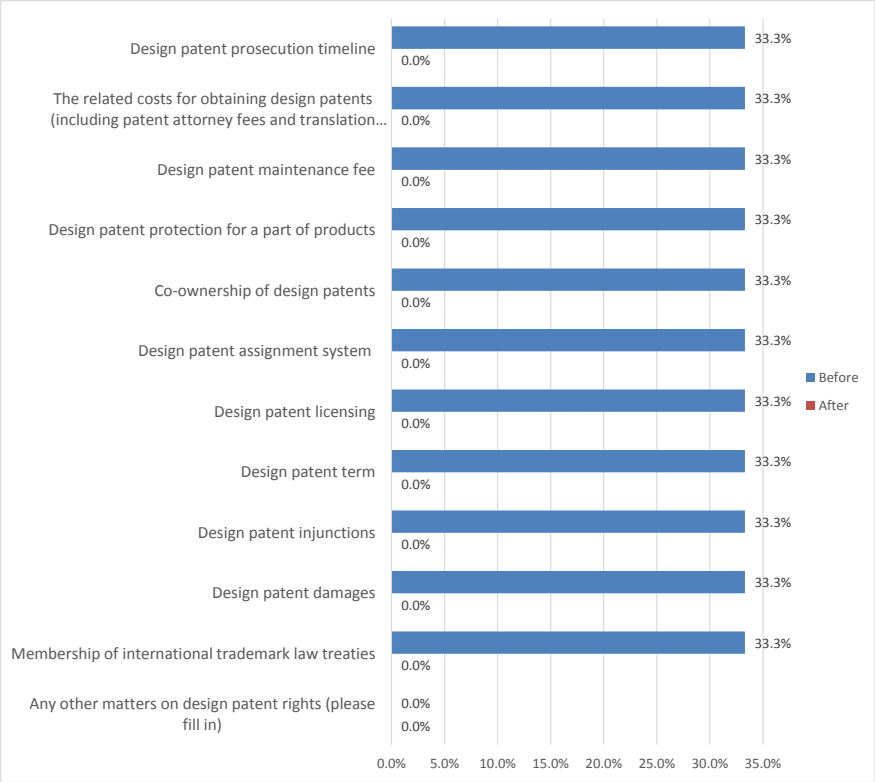
4.3. Design

In China, a design is protected by the Patent Law. Many Chinese companies, therefore, are not familiar with design protection systems in ASEAN countries and have not applied for design patent or design registration in ASEAN countries. This is in contrast with the situation for invention patents.

Amongst the Chinese companies interviewed, however, Transportation A obtained several design patents for its mobile vehicles in some ASEAN countries. This is because the transportation companies have had to depend on the protection of their new vehicle designs. But other Chinese companies have not applied for any design registrations or patents in ASEAN countries.

Transportation A suggests that there should be an effective enforcement system for a registered design or design patent. This should be the same as for patent and trademark enforcement systems.

Figure 6.6: Situation of Design Patent

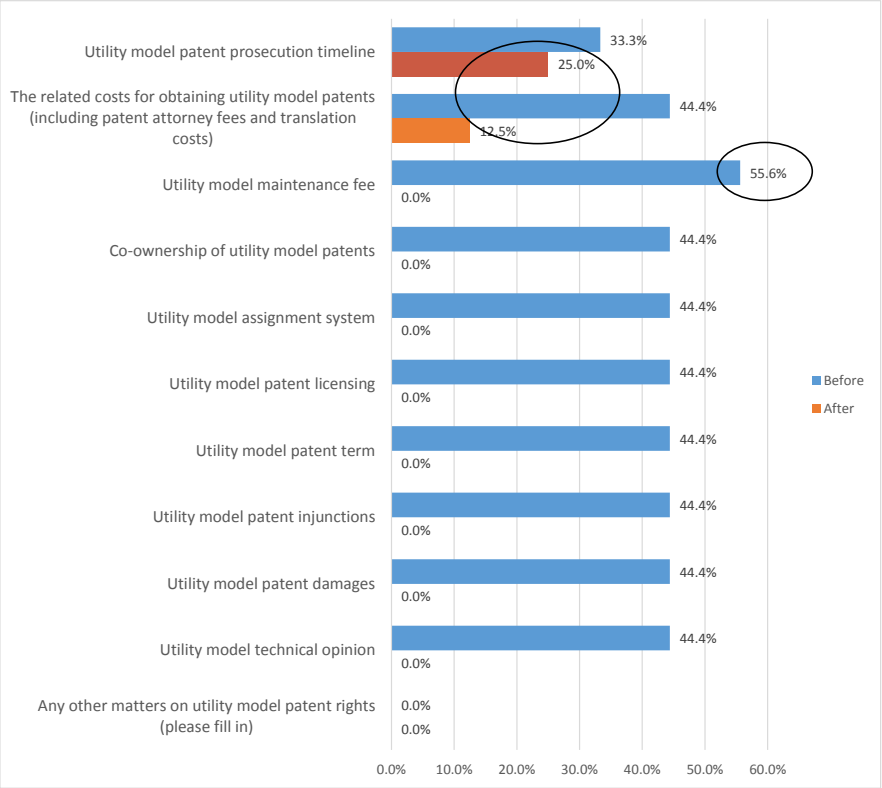


4.4. Utility model

Under Chinese Patent Law are three kinds of patent—invention patent, utility model patent, and design patent. This is in contrast to many other countries. For example, Japan and Germany have a special utility model law. In some other countries such as the United States, Canada, and Australia, the utility model is not protected.

So far no Chinese company has applied for utility model registration or utility model patent in ASEAN countries. Although Chinese companies do not know the exact situation regarding utility model protection in ASEAN countries, they are still interested to know whether they can get some kind of protection according to the utility model.

Figure 6.7: Situation of Utility Model Patent

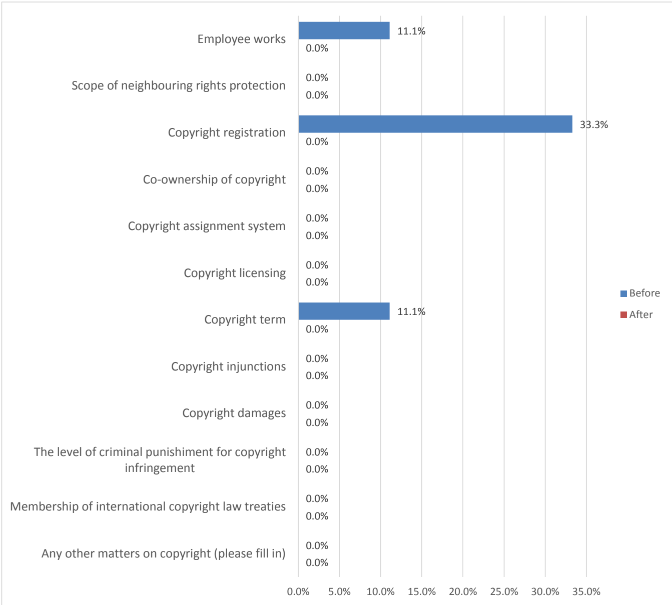


4.5. Copyright

Most of the Chinese companies interviewed are in the industries of transportation, chemicals, and food, and their businesses are not closely related to the copyright or copyright industry. Electric A and Electric B, however, operate in the communication industry and are concerned about copyright protection for their software used in communication devices. They reported they established numerous development and research institutes in China and many foreign countries, and the software that has resulted from their research activities is their most important property.

Furthermore, Electric B proposed a solution regarding the deposit of a software's source code. In light of the company's negative experience in India concerning the deposit of the source code of its software, it suggests ASEAN countries appoint a neutral institute or agency to undertake this task, rather than appointing a communication company as commonly practised in India.

Figure 6.8: Situation of Copyright



4.6. Other IP-related issues

As for other IP-related issues, Chinese companies mainly refer to the protection of trade secret. Under the Chinese legal system, there are no concepts like 'know-how' or 'technological know-how'; only 'trade secret'. According to the Unfair Competition Law of China, trade secret has a broad meaning, including 'know-how' or 'technological know-how', and this is in accordance with Article 39 of The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

Most of the Chinese companies interviewed are concerned about the trade secret protection systems in ASEAN countries. Apparently, some of the Chinese companies interviewed, such as Electric A and Electric B, Transportation A, and Chemical A and Chemical B, are heavily dependent on the protection of trade secret. Even Food B depends on the protection of its recipes for a variety of fodders.

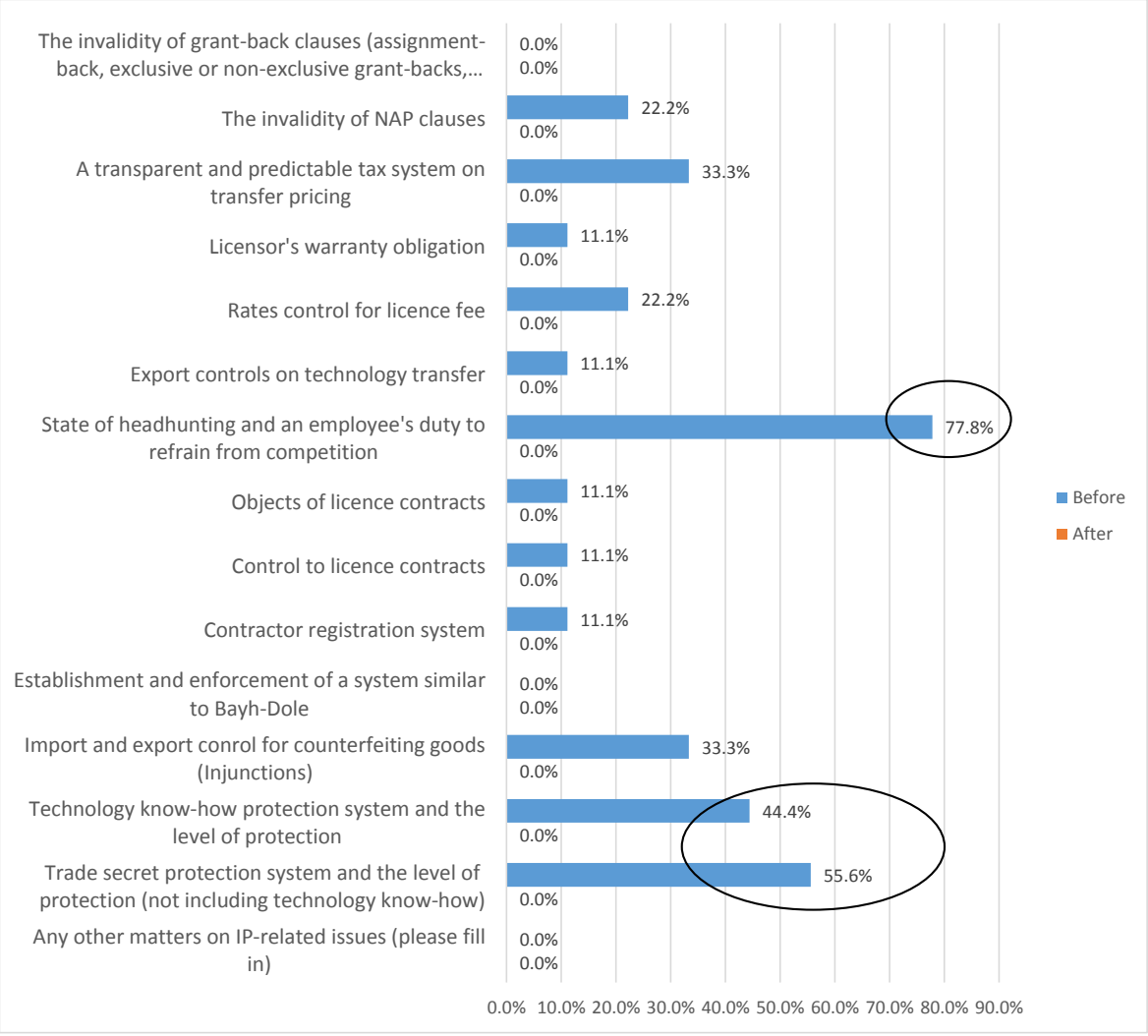
To protect a trade secret, the first and most important step is to manage one's trade secret well to be kept secret. Food B reports it has a strict mechanism for managing its recipes of fodders, with different recipes for breeding stock, newborn stock, pork, and chicken. Food B even developed special fodder recipes for the different stages of life of specific animals. These recipes Food B has kept highly secret both in China and in foreign countries, with only several of its technical employees knowing the recipes.

In addition to the sound management of one's trade secret, the effective enforcement of one's trade secret is also important. For this an effective enforcement system in the country

concerned is required. None of the Chinese companies interviewed reported any trade secret disputes with local employees or competitors in ASEAN countries. According to Electric A, Electric B, and Food A, this is because of the sound management mechanism of trade secrets. Apart from their internal management mechanisms, Chemical A and Chemical B believe that it is difficult for a local competitor or employee to conduct counter engineering targeting their chemical products. Hence, local companies purchase the products in question directly from the Chinese companies.

With regard to the protection of trade secrets, Electric B reported that some offerers in ASEAN countries have leaked bidding information to competitors, which in turn resulted in unfair competition amongst offerees. This tends to be the result of commercial bribes or corruption, and damages fair competition.

Figure 6.9: Other IP-Related Systems



5. Brief Summary

The Chinese companies interviewed reported that in their decisions to expand overseas, they would first consider North America and the EU, then Japan and Korea, then India and Brazil. ASEAN was usually their last choice. Hence, most of the Chinese companies interviewed arrange their IPR maps in that order.

The questionnaires and interviews revealed that when the Chinese companies decided to establish new subsidiaries in ASEAN countries, they did not consider IPR or IP laws as the most important factors, although they did pay some attention to their IPR. For example, the two factors of 'level of legal development concerning IPR' and 'level of the implementation and enforcement of IP laws' followed the four factors of 'trade barriers or trade friction', 'country risk', 'easy to establish sales channels', and 'the size and growth rate of the relevant market'.

Following the principle of 'products, trademarks, and market', all of the Chinese companies interviewed registered their main trademarks and other trademarks either in all ASEAN countries or in the countries where they have business. And according to the principles of 'patents, products, and market' and 'one patent is better than no patent', many Chinese companies applied for and obtained invention patents and design patents in some ASEAN countries. Furthermore, to maintain their market share in ASEAN countries, most of the Chinese companies interviewed have taken the necessary measures to manage and protect their trade secrets, and have no disputes with local firms or employees.

The Chinese companies interviewed apparently have differing attitudes toward IPR depending on the industries they operate in. Overall, all these companies have paid sufficient attention to their trademark rights, such as registering their trademarks in ASEAN countries, investing in the goodwill of trademarks, and exerting efforts to enforce their trademark rights. As for patents, Electric A and Electric B, Chemical A and Chemical B focused on invention patents, whereas Transportation A focused on design patents, and Electric C, Food A, and Food B did not apply for any patents in ASEAN countries. Food A has some 100 patents in China, but has not applied for any patents in ASEAN countries.

The Chinese companies interviewed hardly mentioned copyright. Only Electric A and Electric B mentioned copyright protection of their computer programmes, including the possibility of the deposit of the source code in the future. As for trade secret protection, most of the companies established sound mechanisms to keep the related information secret.

Regarding IPR, the companies interviewed believe that a well-developed IP system and a strong enforcement capability of related IPR are key to promoting foreign direct investment in ASEAN countries.

CHAPTER 7

Korean Companies

1. Profile of the Companies

Companies included in the sample for the purpose of this report were named company A, B, C, D, E, F, G, H, I, and J. They operate different business activities in ASEAN. Company A is engaged in the manufacture and distribution of cosmetic products while Company B is in the development of petroleum and management of its subsidiaries and other chemical segments.

Company C is in the electronics business with assembly plants and a sales network covering all of the world. Company D is an Internet service provider; Company E, an electronics company with subsidiaries worldwide that design and produce electronic goods; and Company F, an oil refining and marketing company.

Company G operates in the life science business, food and food services, new logistics business, entertainment and media business, and infrastructure business. Company H is an auto manufacturing business. Company I operates in different business areas such as power and industrial systems, construction, trading, textile, information and communication, industrial materials, and chemicals manufacturing. Company J is a chemical manufacturer.

In general, 77 percent of these companies operate sales businesses and 23 percent are engaged in production in ASEAN (see Figure 7.1). In terms of type of establishment, 56 percent of the companies are self-established and 44 percent of them are joint ventures (see Figure 7.2). With regard to their countries of operation in ASEAN, Indonesia and Thailand each accounted for 27 percent, Viet Nam and Malaysia each accounted for 13 percent, and the remaining 20 percent were in Singapore (see Figure 7.3).

Figure 7.1: Types of Activities

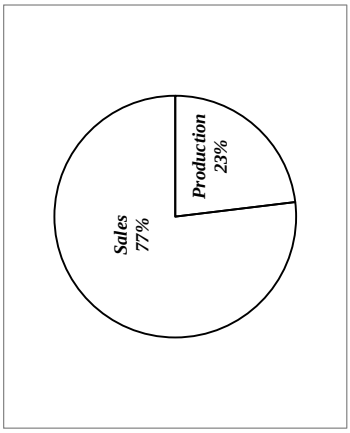


Figure 7.2: Types of Establishment

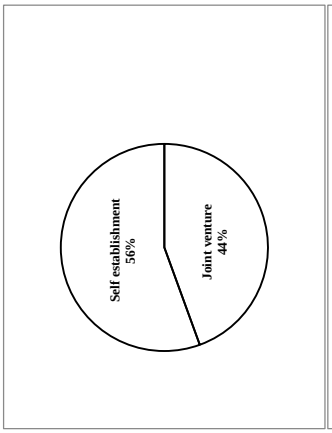
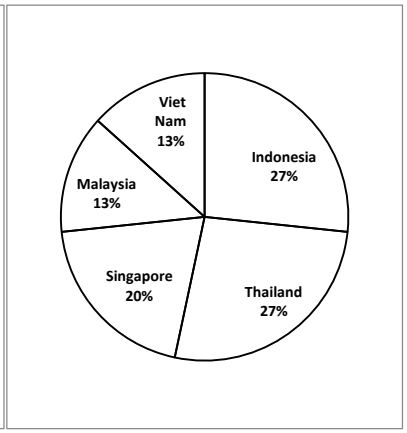


Figure 7.3: ASEAN Countries where Subsidiaries Operate



2. General Determinants of Establishing Subsidiary and Issues Faced after Establishment

The general determinants of establishing subsidiaries that a majority of companies considered before establishing subsidiaries in ASEAN include 'ease of procuring raw materials, components, etc.'; 'ease of establishing sales channels'; 'completeness and reliability of infrastructure'; 'country risk (political, religious stability, disaster, etc.)'; 'corporate tax rate'; 'existence of preferential treatment system (favourable taxation system, etc.)'; 'regulations on currency repatriation and exchange'; 'wage level (labour cost)'; 'number of existing competitors in the relevant market'; 'distance from home country'; 'size and growth rate of the relevant market'; 'requirements for operating permit (regarding procurement of raw materials, investment ratio, etc.)'; 'trade barriers or trade friction'; 'size and growth rate of GDP'; 'receptiveness to foreign products by local customers'; 'quality of human capital'; 'distance from neighbouring country with large market'; and 'stability of exchange rate' (see Figures 7.4 and 7.6).

IP matters, which were listed under determinants as 'level of implementation and enforcement of intellectual property law' and 'level of legal development concerning intellectual property rights', were not indicated by a majority of companies as factors to be considered for expansion in ASEAN. Once companies had established subsidiaries, however, these IP matters did become determinants (see Figures 7.5 and 7.7). Moreover, regarding future expansions in ASEAN, a majority of companies gave top priority to these IP matters as factors to be considered (see Figure 7.8).

Figure 7.4: Determinants Considered Before Expansion to Country 1

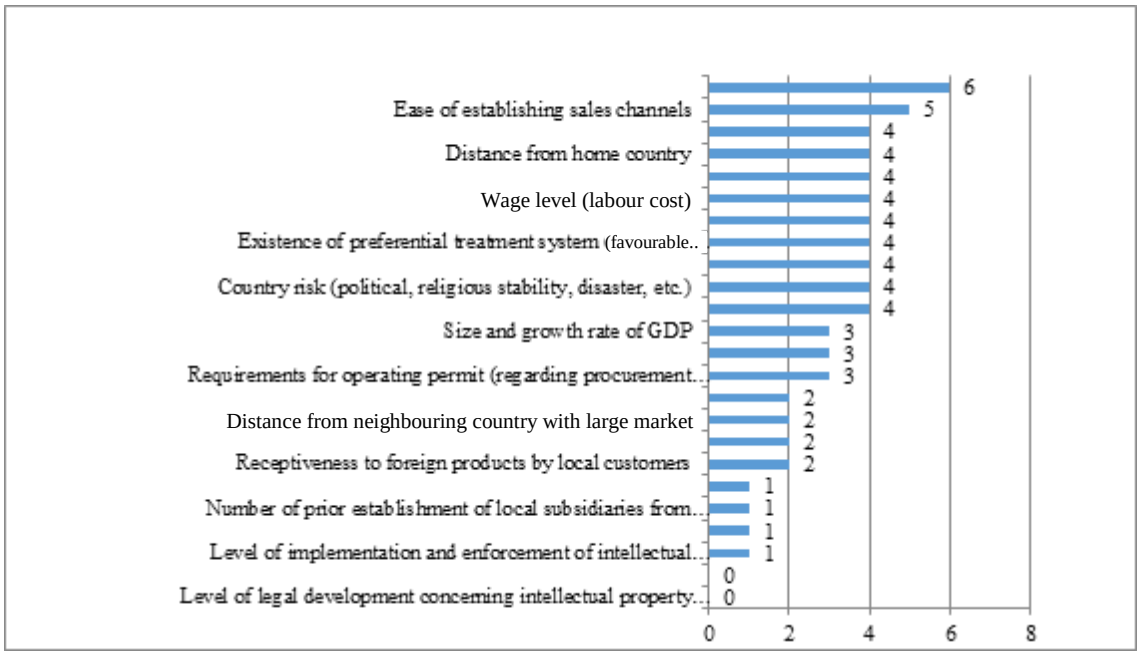


Figure 7.5: Issues Faced After Expansion to Country 1

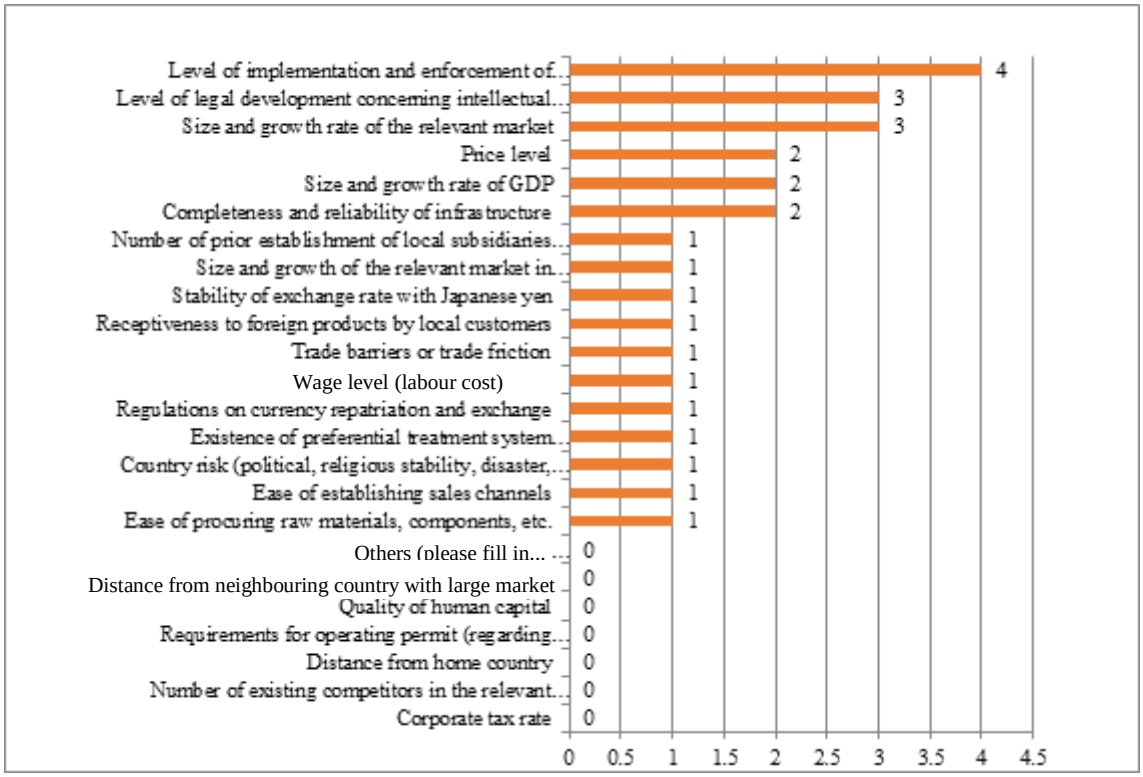


Figure 7.6: Determinants Considered Before Expansion to Country 2

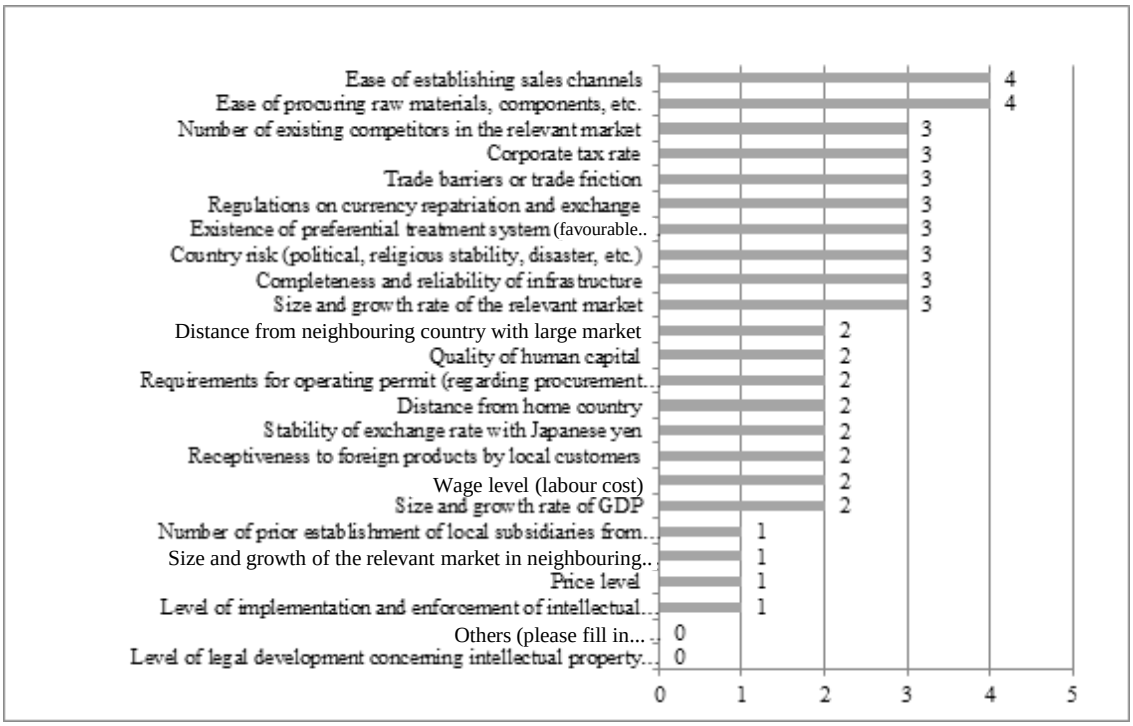


Figure 7.7: Issues Faced After Expansion to Country 2

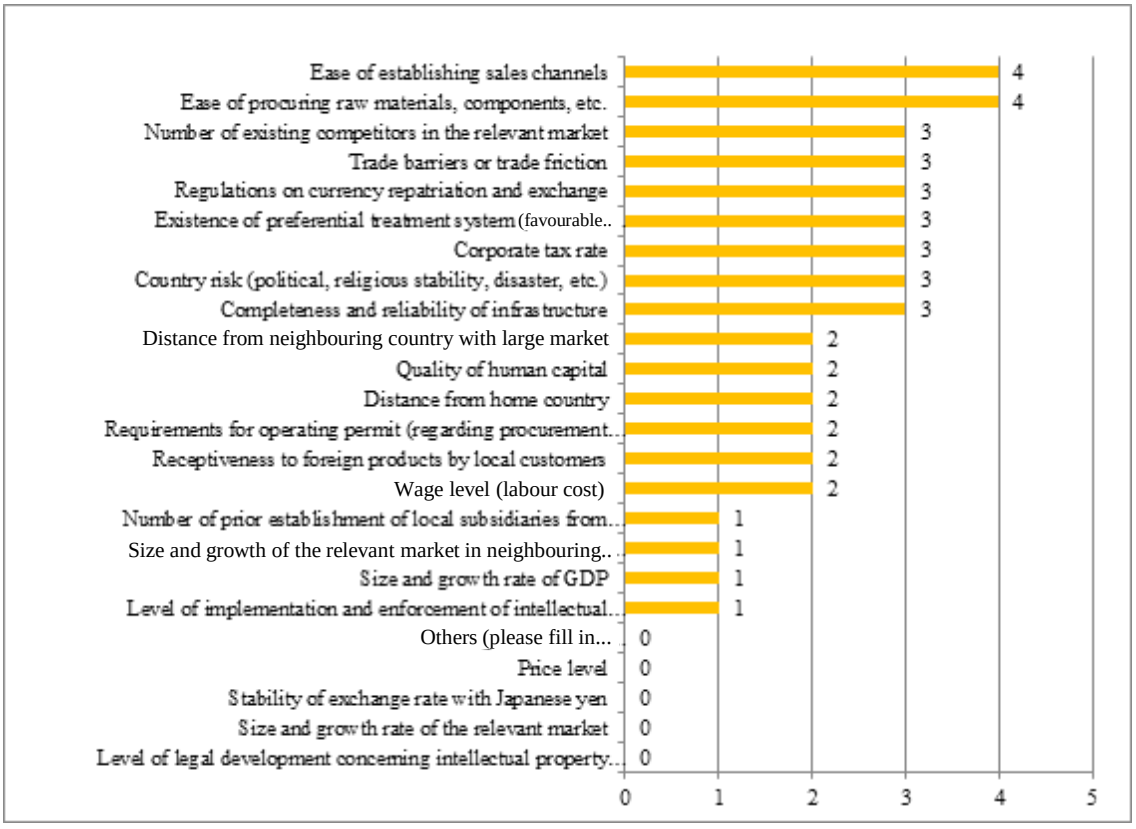
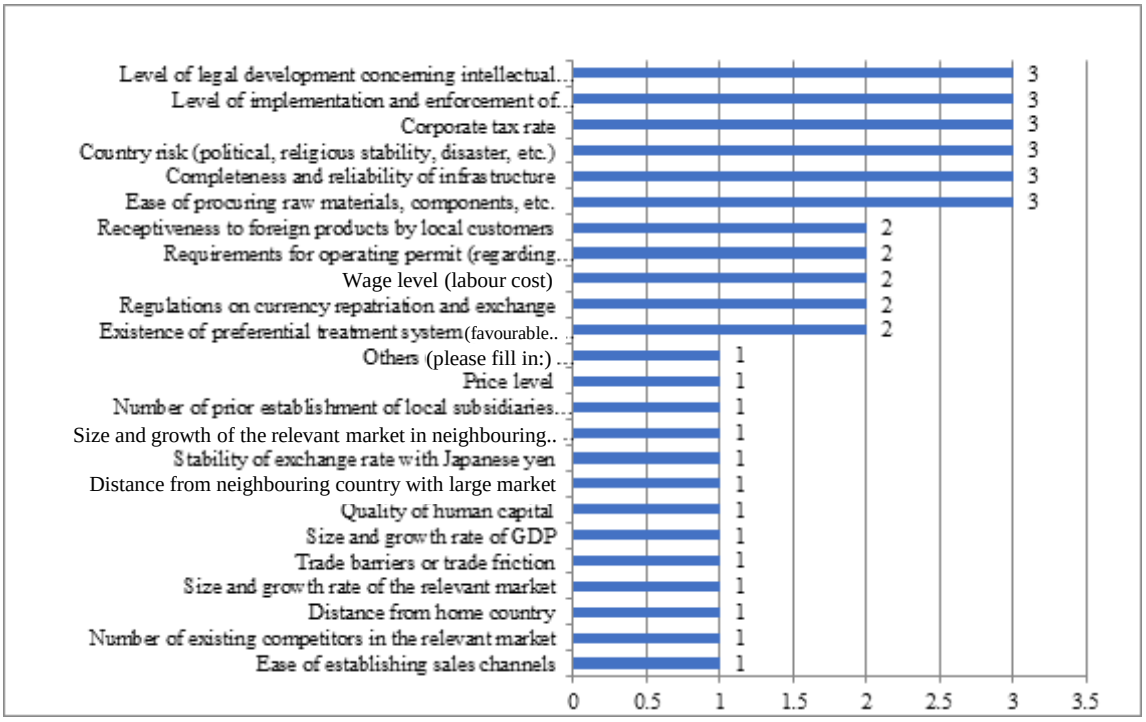


Figure 7.8: Determinants in Expansion Plan to Country 3



3. IPR and IP Systems as Factors Considered in Establishing Subsidiaries

A majority of companies put matters related to trademark at the top of their list of determinants for expansion decisions (see Figures 7.9 and 7.11) after establishing subsidiaries (see Figures 7.10 and 7.12) and regarding future expansions (see Figure 7.13).

The reason is that 77 percent of the companies in our research are engaged in sales activities, meaning, they predominantly face trademark issues rather other IP matters, such as patent, utility model patent, design patent, and copyright.

Trademark matters that ranked highly as factors considered in expansion decisions by a majority of companies were ‘scope of trademark rights’, ‘operation of legal system on trademark rights enforcement’, and ‘development of legal system on trademark rights enforcement’.

Figure 7.9: Perception of IP System Before Expansion to Country 1

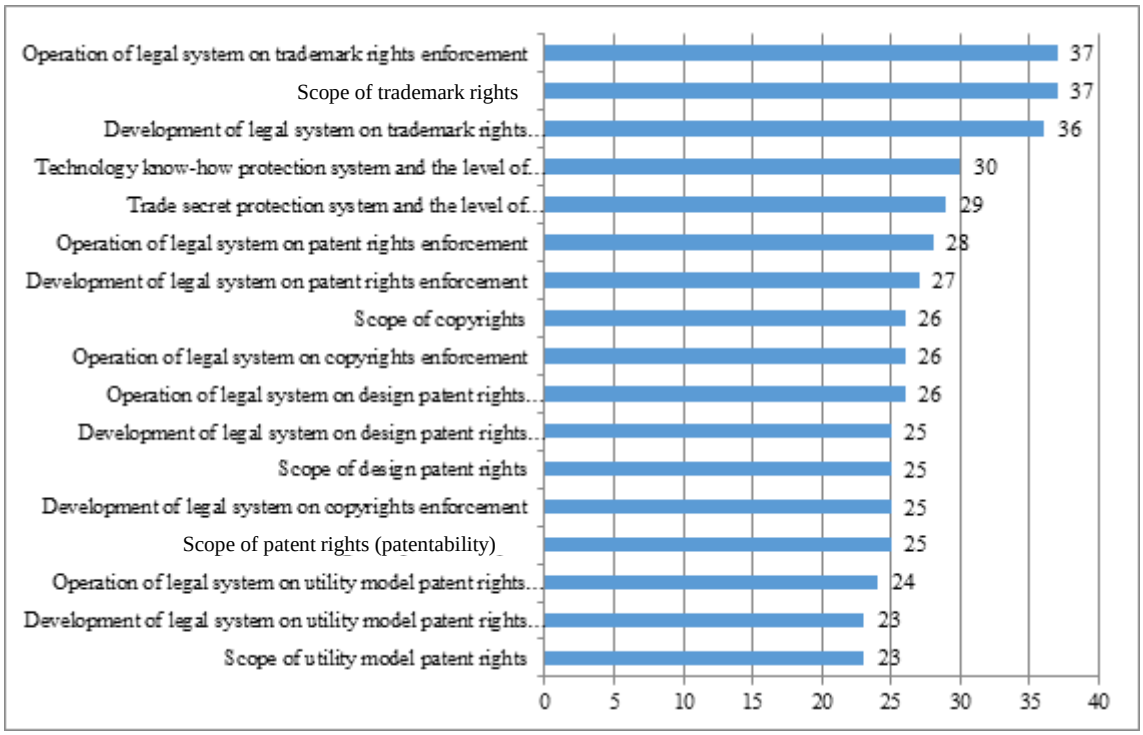


Figure 7.10: Issues of IP System Faced After Expansion to Country 1

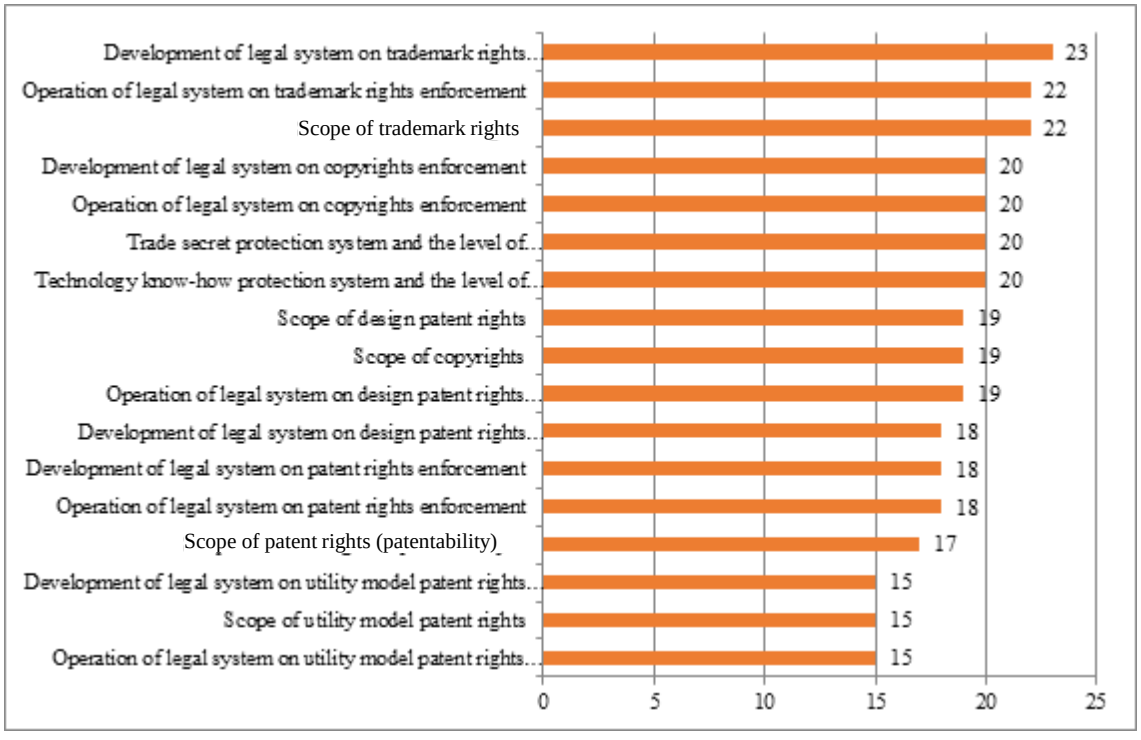


Figure 7.11: Perception of IP System Before Expansion to Country 2

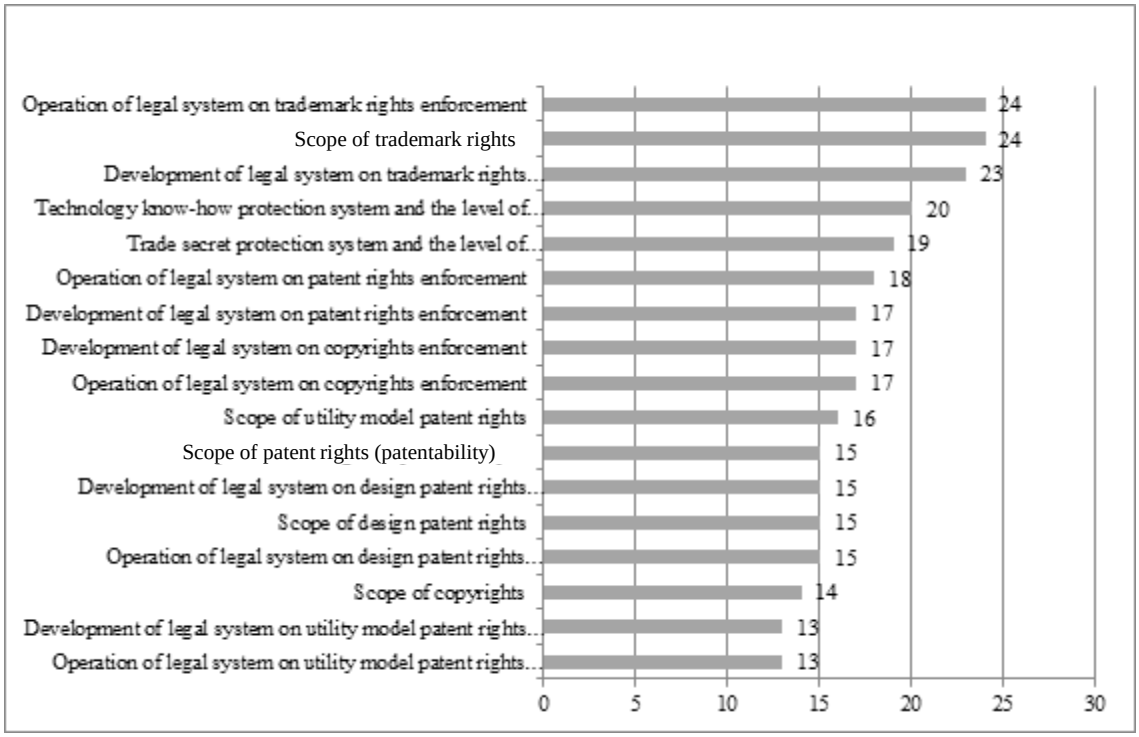


Figure 7.12: IP Issues Faced After Expansion to Country 2

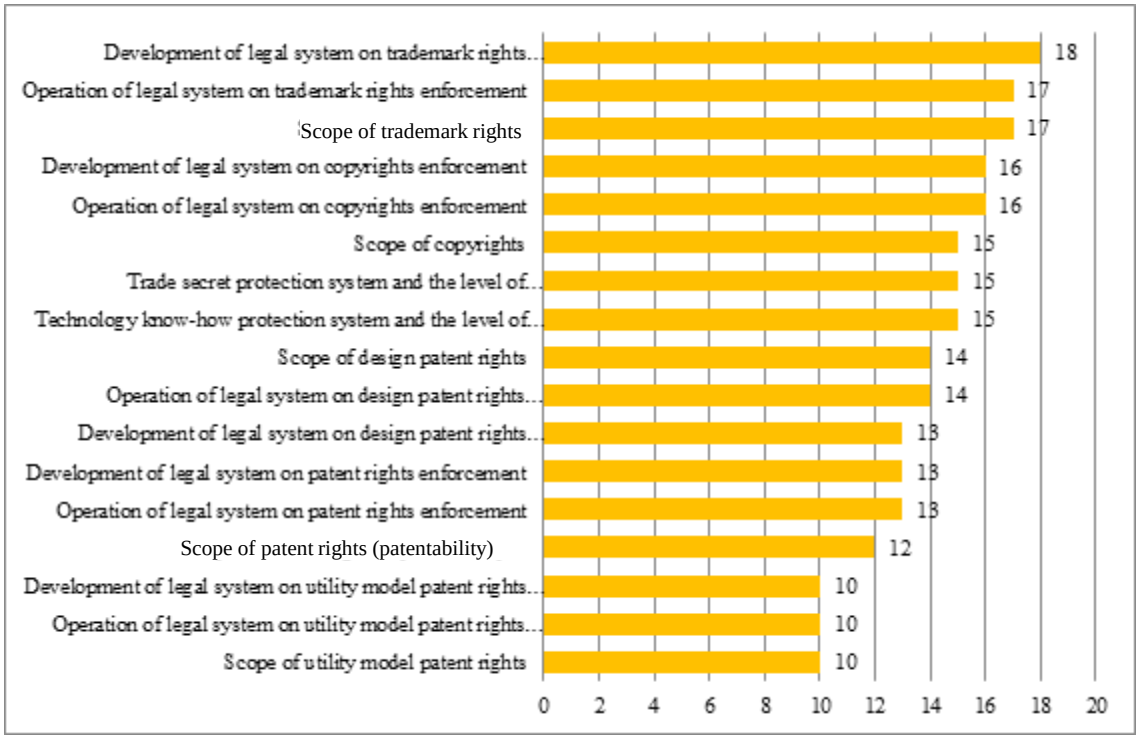
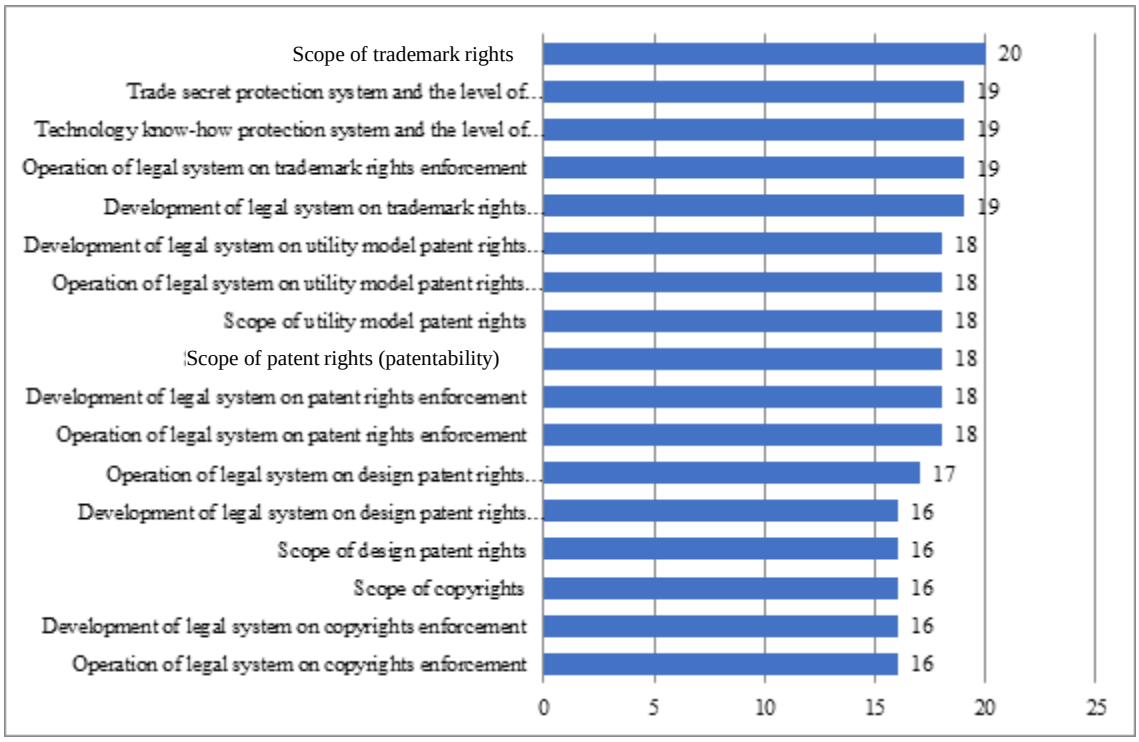


Figure 7.13: Planning to Establish Subsidiary in Country 3



4. Specific IPR Considered by the Companies and IP issues Faced

Before their expansion into ASEAN, the specific IPR that a majority of companies considered differed considerably from the issues faced after expansion. In the case of patent, before establishing subsidiaries, a majority of companies accorded great importance to 'patent damages', 'membership of international patent law treaties', 'patent injunctions', and 'related costs for obtaining patents, including patent attorney fees and translation costs' (see Figure 7.14). After establishment, however, 'patent term' and 'patent assignment' were the most important issues faced (see Figure 7.15).

With regard to trademark, before expansion 'trademark prosecution timeline', 'types of trademark', and 'the related costs for obtaining trademark' were considered to be the most important determinants of expansion (see Figure 7.16). After establishment of their subsidiaries in ASEAN, 'trademark injunctions', 'trademark damages', 'trademark term', and 'co-ownership of trademark rights' became the most important issues (see Figure 7.17).

Figure 7.14: Specific Patent Matters Considered Before Establishment in Countries 1 and 2

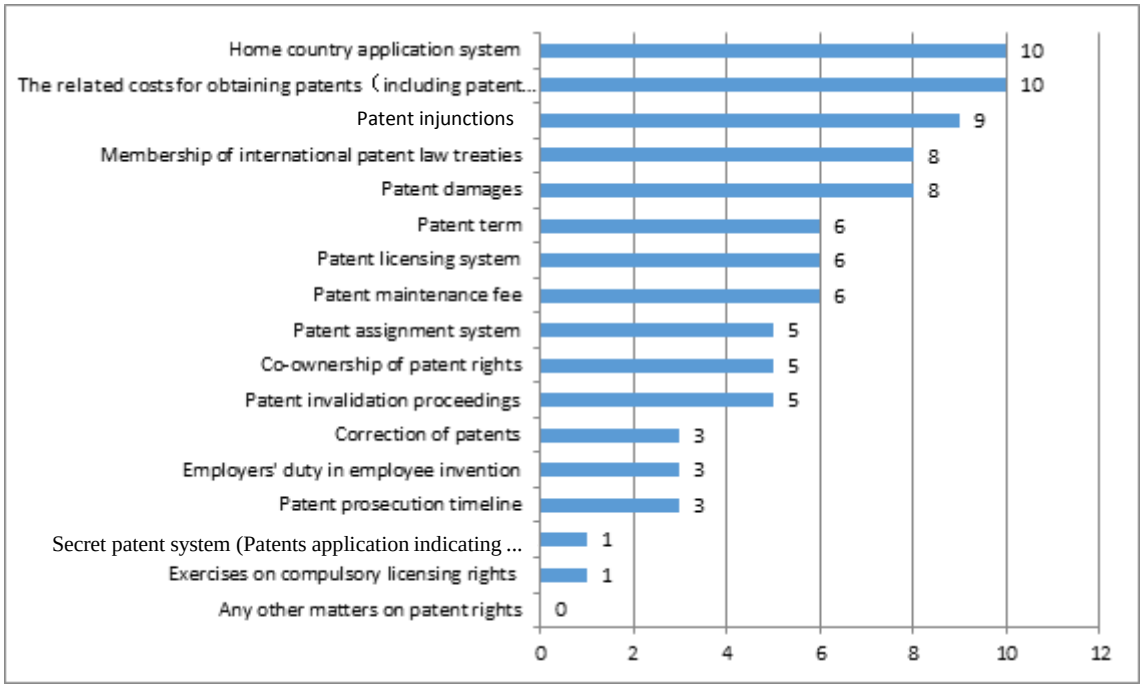


Figure 7.15: Specific Patent Issues Faced After Establishment in Countries 1 and 2

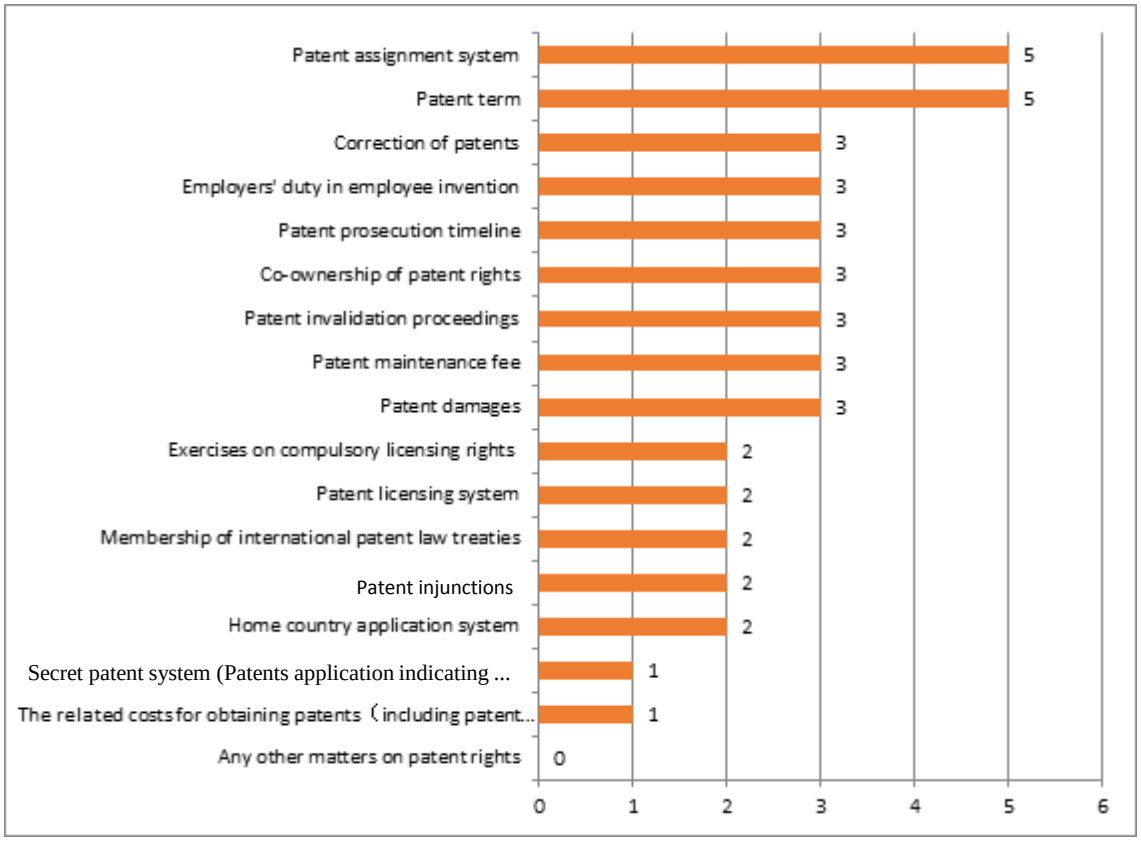


Figure 7.16: Specific Trademark Matters Considered Before Establishment in Countries 1 and 2

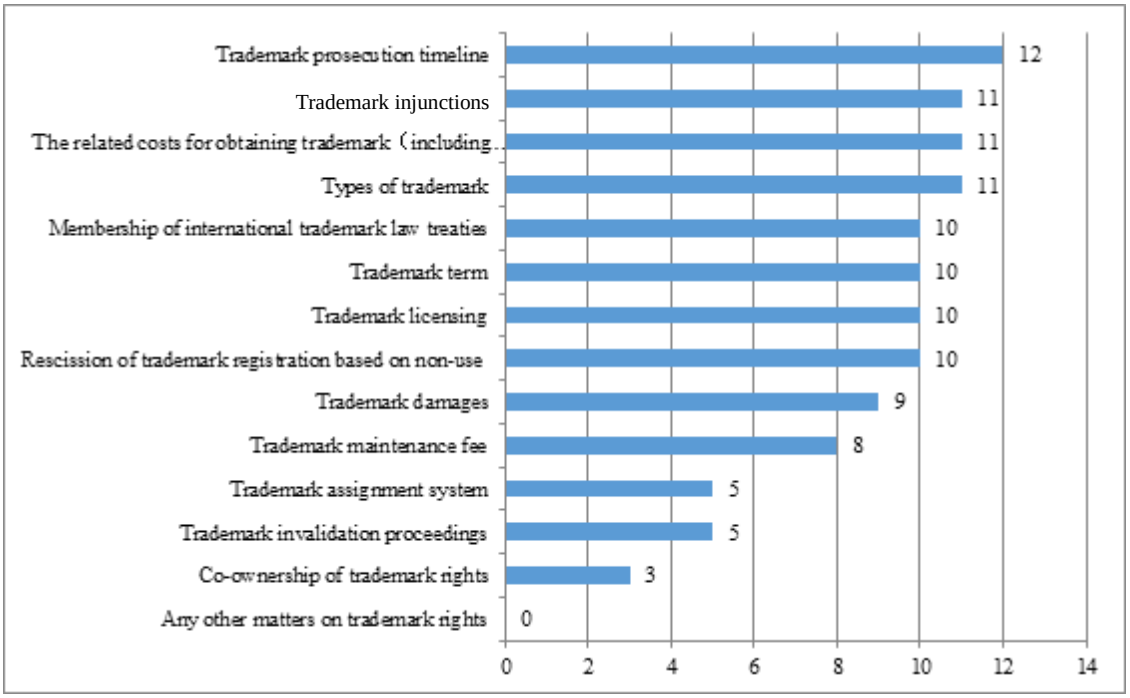
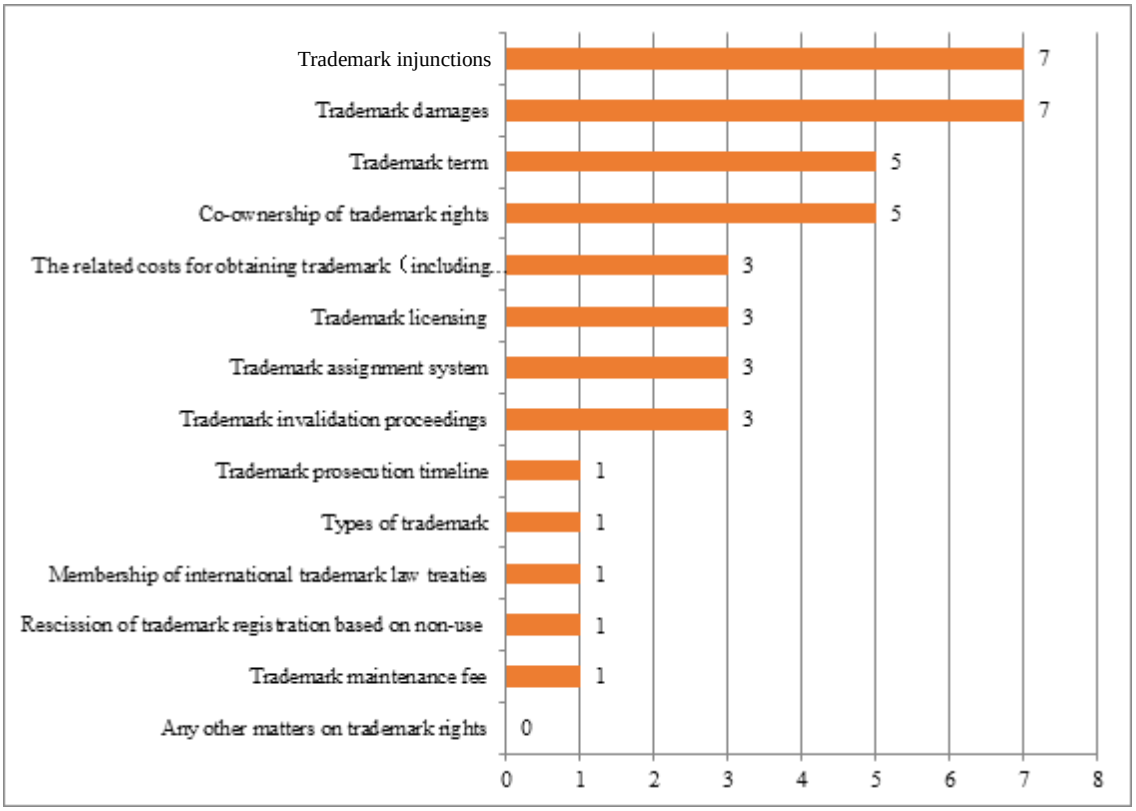


Figure 7.17: Specific Trademark Matters Faced After Establishment in Countries 1 and 2



In the case of design patent, before establishing subsidiaries in ASEAN, a majority of companies listed ‘the related costs for obtaining design patents’, ‘design patent injunctions’, ‘design patent prosecution timeline’, ‘membership of international design patent law treaties’, ‘design patent damages’, and ‘design patent maintenance fee’ as factors to be considered regarding expansion (see Figure 7.18). After expansion, ‘design patent protection for a part of products’ and ‘co-ownership of design patent’ were the key issues faced by a majority of companies (see Figure 7.19).

Before establishing subsidiaries in ASEAN, for a majority of companies, the priority issues regarding utility model patents were the ‘related costs for obtaining utility model patents’ and ‘utility model patent damages’. After expansion, problems faced by the companies regarding specific utility model were predominantly ‘utility model patent injunctions’ and ‘utility model licensing’ (see Figures 7.20 and 7.21).

Figure 7.18: Specific Design Patent Matters Before Establishment in Countries 1 and 2

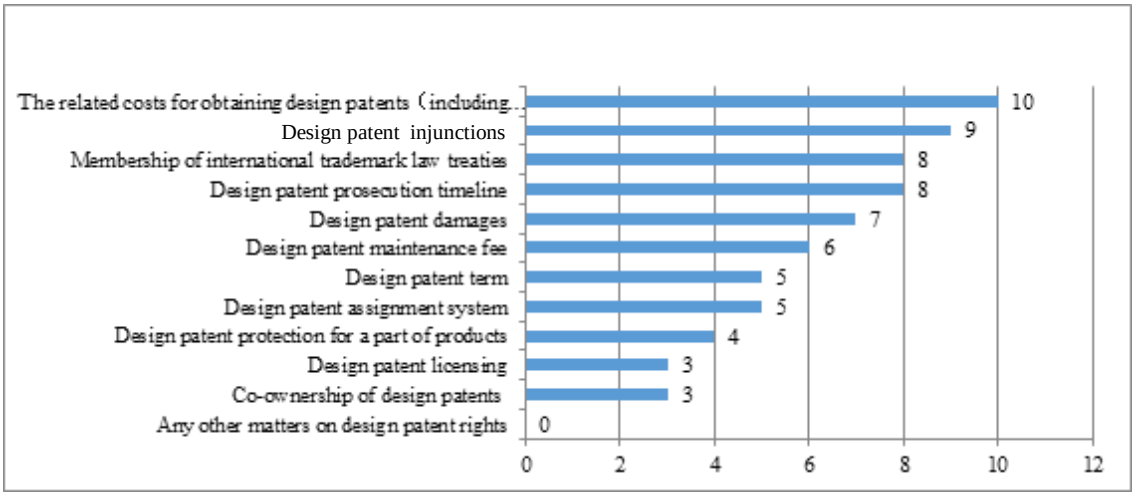


Figure 7.19: Specific Patent Issues Faced After Establishment in Countries 1 and 2

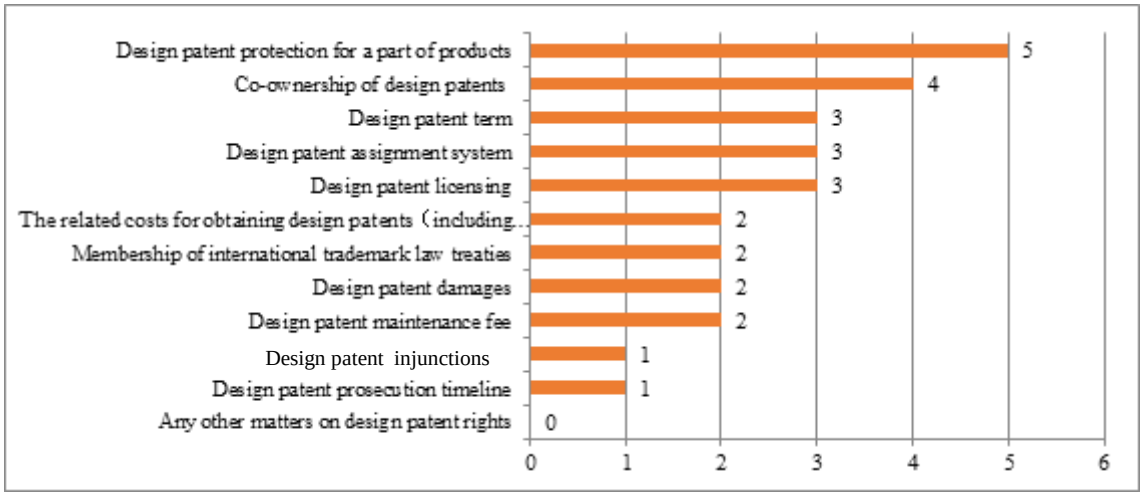


Figure 7.20: Specific Utility Patent Matters Before Establishment in Countries 1 and 2

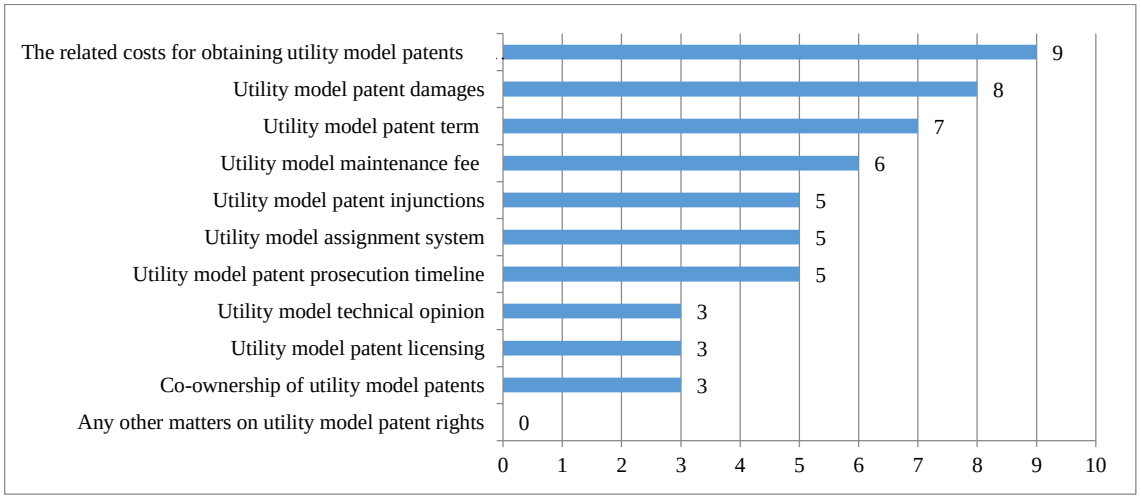
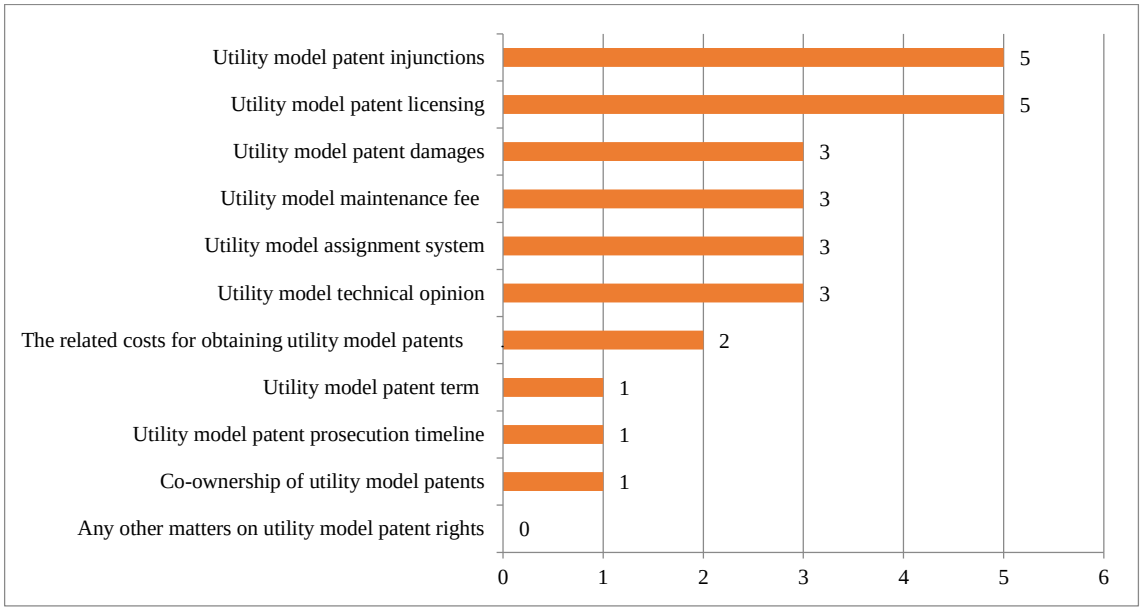


Figure 7.21: Specific Utility Patent Issues Faced After Establishment in Countries 1 and 2



In relation to copyright, the majority of companies considered ‘scope of neighbouring rights protection’, ‘the level of criminal punishment for copyright infringement’, and ‘copyright registration’ to be priority issues regarding expansion (see Figure 7.22). After expansion, ‘copyright damages’, ‘copyright injunctions’, ‘the level of criminal punishment for copyright infringement’, and ‘employee works’ were listed as the main issues (see Figure 7.23).

In terms of other IP-related issues, ‘technology know-how protection system and the level of protection’, ‘trade secret protection system and the level of protection (not including technology know-how)’, ‘import and export control for counterfeiting goods (injunctions)’, ‘control to license contracts’, ‘objects of licence contracts’, and ‘licensor's warranty obligation’ were determinants considered to be the most important by a majority of companies regarding expansion and after establishing subsidiaries in ASEAN (see Figures 7.24 and 7.25).

Figure 7.22: Specific Copyright Matters Considered Before Establishment in Countries 1 and 2

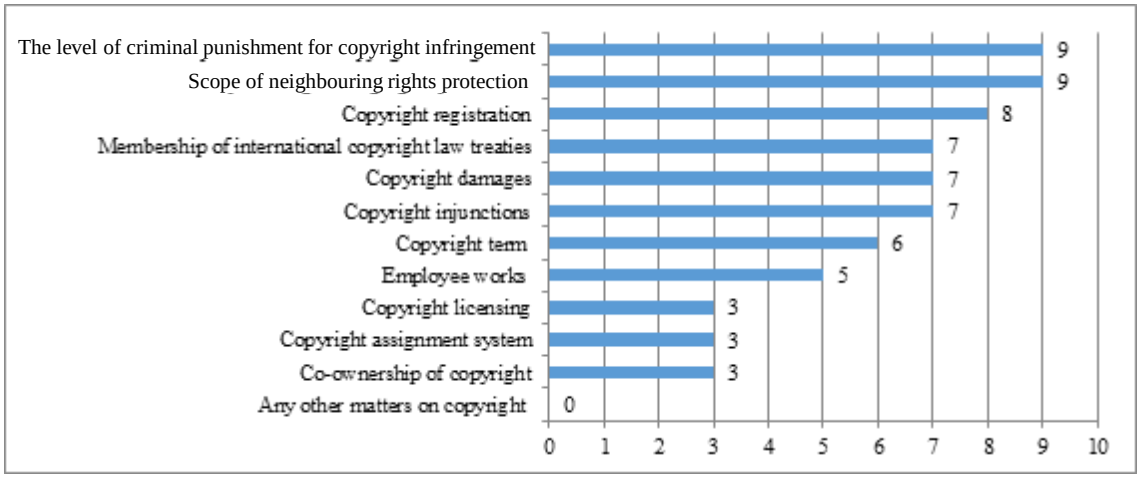


Figure 7.23: Specific Copyright Issues Faced After Establishment in Countries 1 and 2

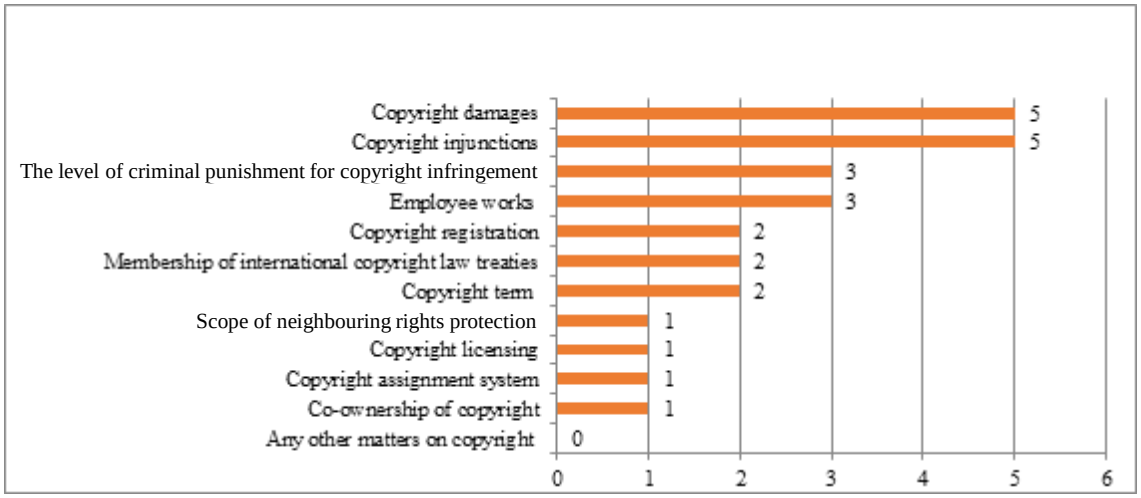


Figure 7.24: Specific IP Factors Before Establishment in Countries 1 and 2

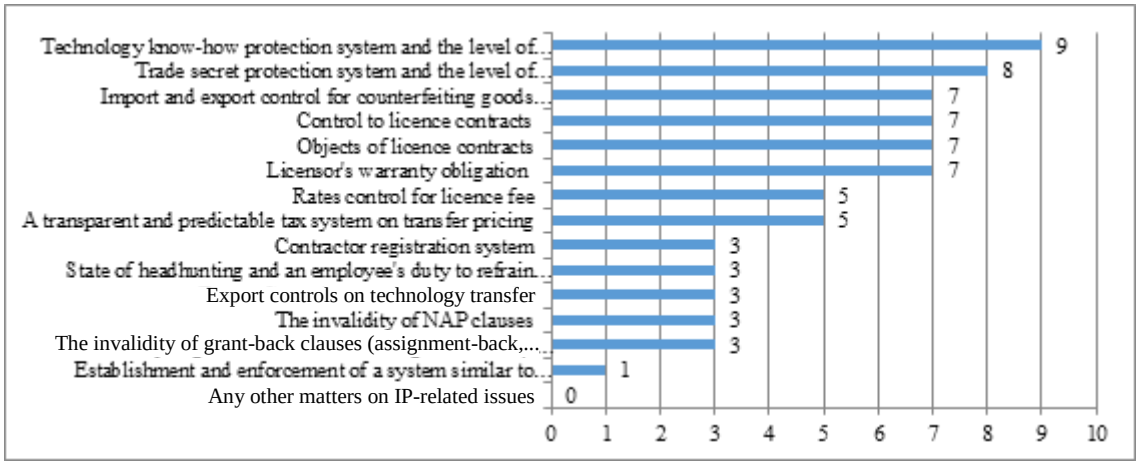
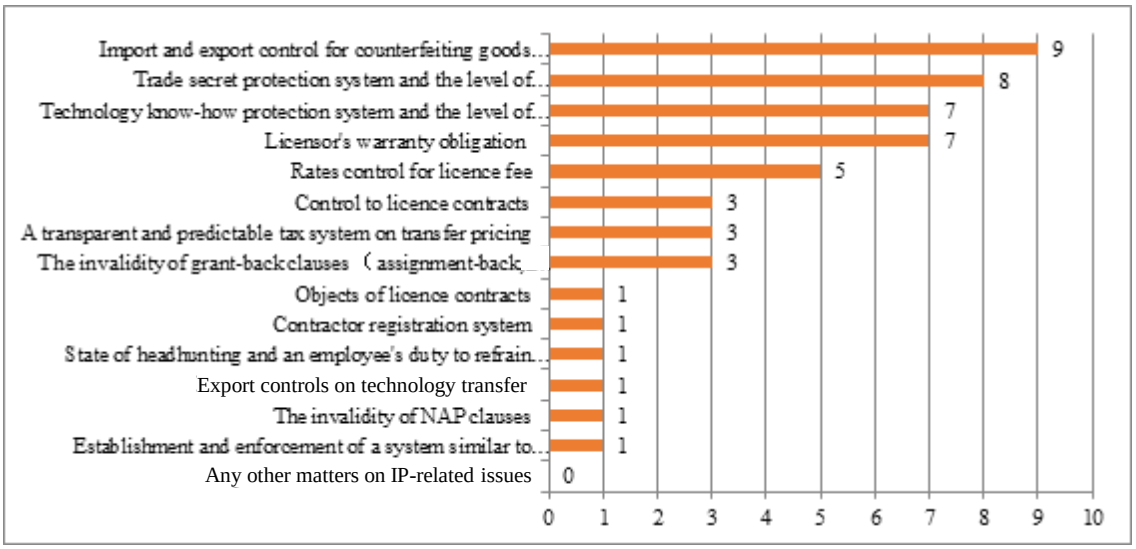


Figure 7.25: Specific Issues Faced After Establishment in Countries 1 and 2



5. Development of General and Specific IP Matters in ASEAN

In this section, the development of general and specific IP issues of ASEAN were investigated based on the data collected from the companies surveyed with regard to their operations in each ASEAN country.

5.1. Development of general IP issues in ASEAN

Most of the companies surveyed did not list ‘level of legal development concerning intellectual property rights’ and ‘level of implementation and enforcement of intellectual property law’ as factors they considered in their ASEAN business expansion decisions (see Figures 7.26, 7.27, 7.28, 7.29, and 7.30), but all companies ranked these factors amongst the main problems they faced after establishment of subsidiaries in ASEAN.

Figure 7.26: Thailand 1

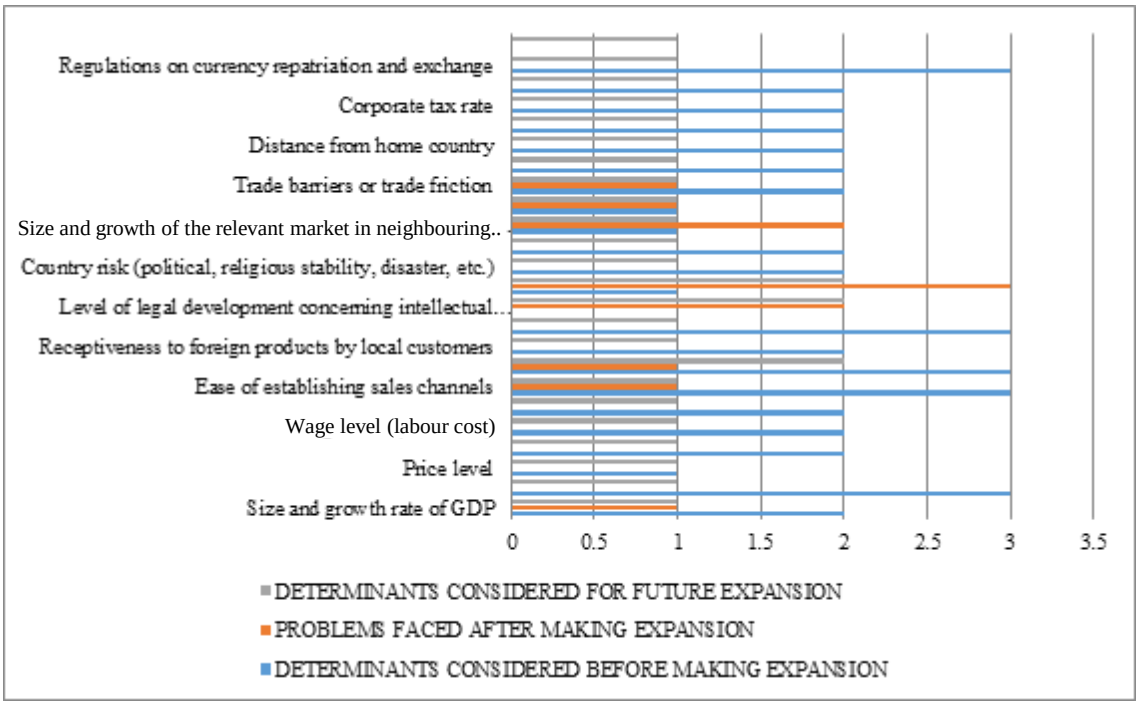


Figure 7.27: Indonesia 1

Figure 7.28: Malaysia 1

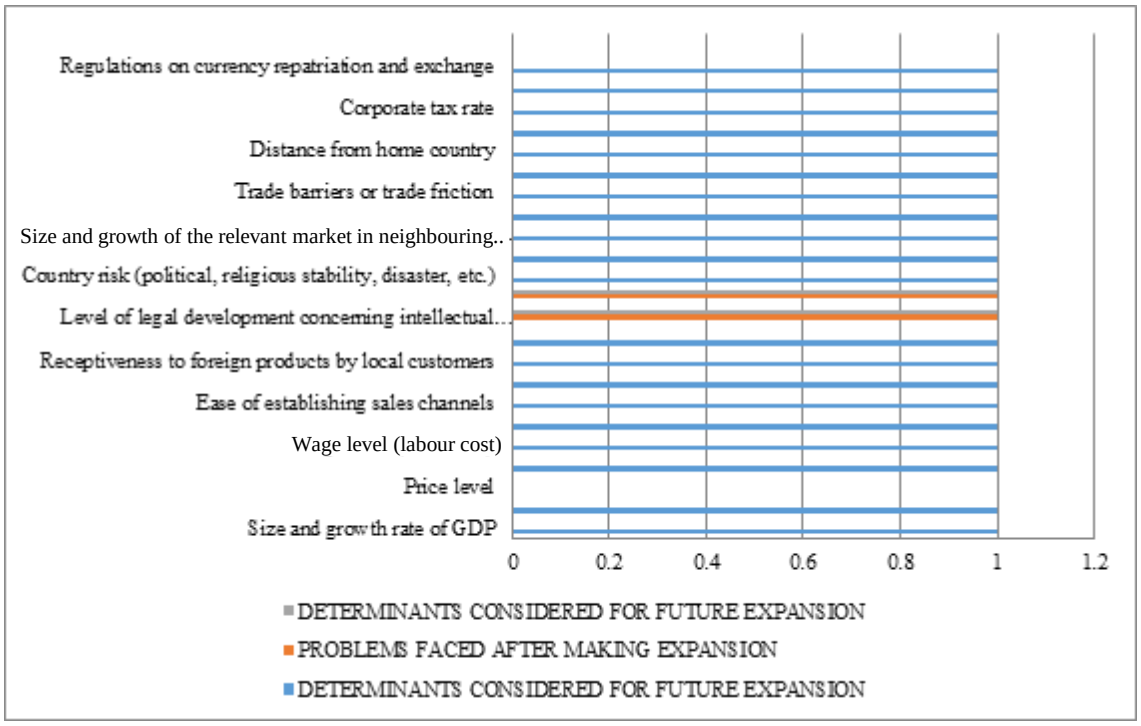


Figure 7.29: Singapore 1

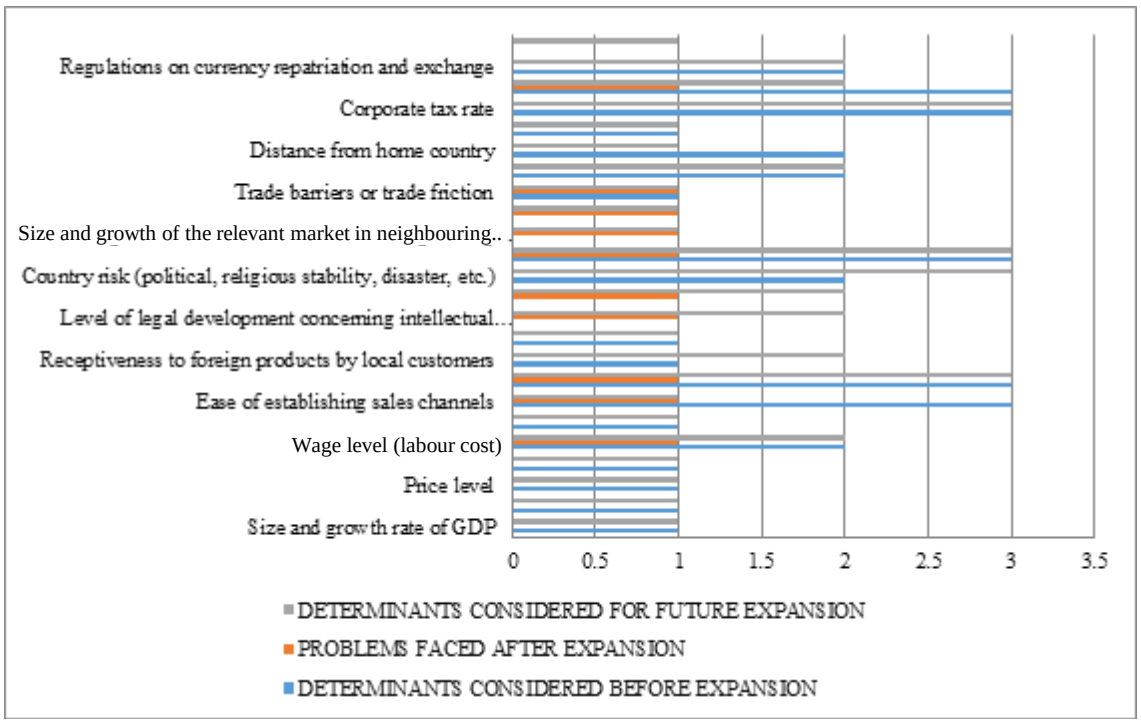
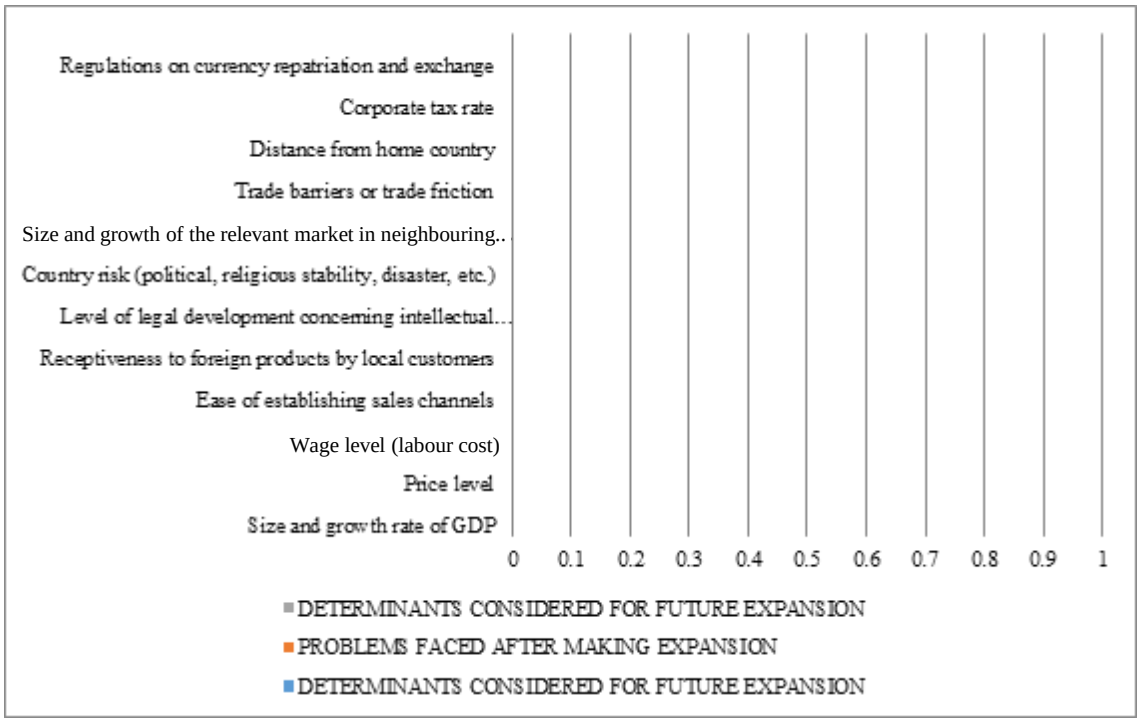


Figure 7.30: Viet Nam 1



5.2. Development of specific matters of IP in ASEAN

・Specific IP matters

A majority of companies with business operations in ASEAN (see Figures 7.31, 7.32, 7.33, 7.34, and 7.35) listed ‘operation of legal system on trademark rights enforcement’ and ‘scope of trademark rights’ as key determinants in their decisions on whether to set up subsidiaries in ASEAN. After establishment, the problems they faced all related to ‘development of legal system on trademark rights enforcement’, ‘development of legal system on copyrights enforcement’, ‘operation of legal system on copyrights enforcement’, ‘trade secret protection system and the level of protection (not including technology know-how)’, ‘technology know-how protection system and the level of protection’, ‘scope of copyrights’, ‘operation of legal system on design patent rights enforcement’, ‘scope of design patent rights’, and ‘scope of patent rights (patentability)’.

Figure 7.31: Thailand 2

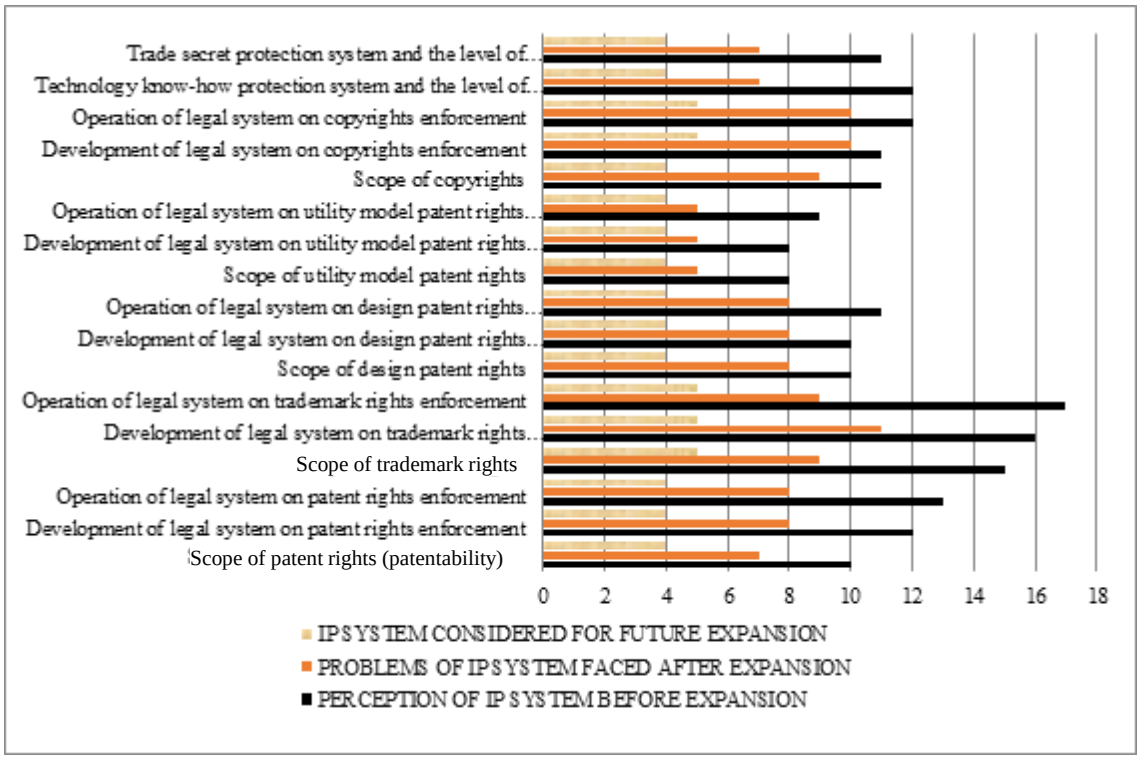


Figure 7.32: Indonesia 2

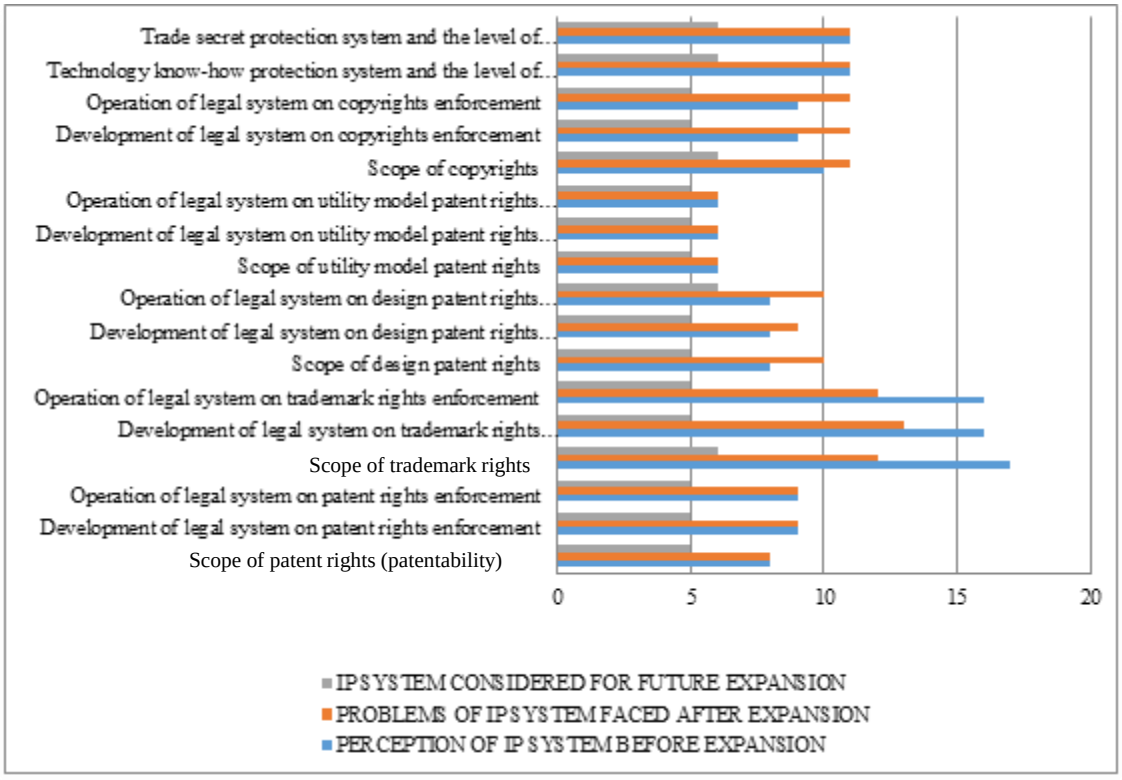


Figure 7.33 Malaysia 2

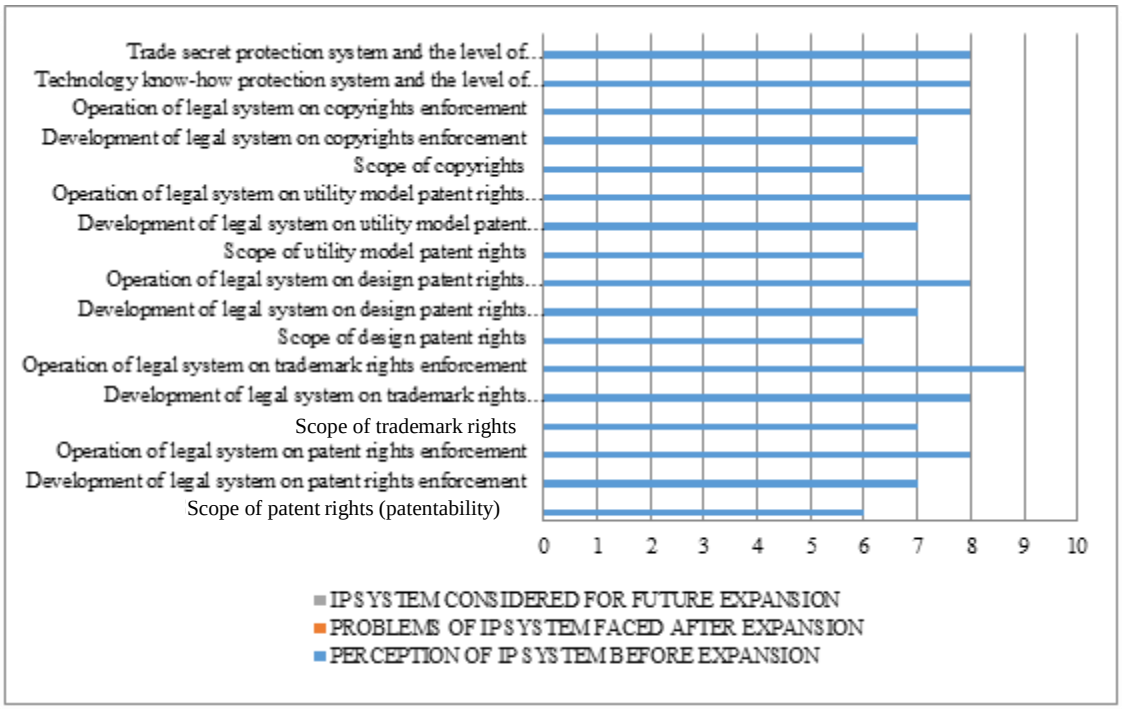


Figure 7.34: Singapore 2

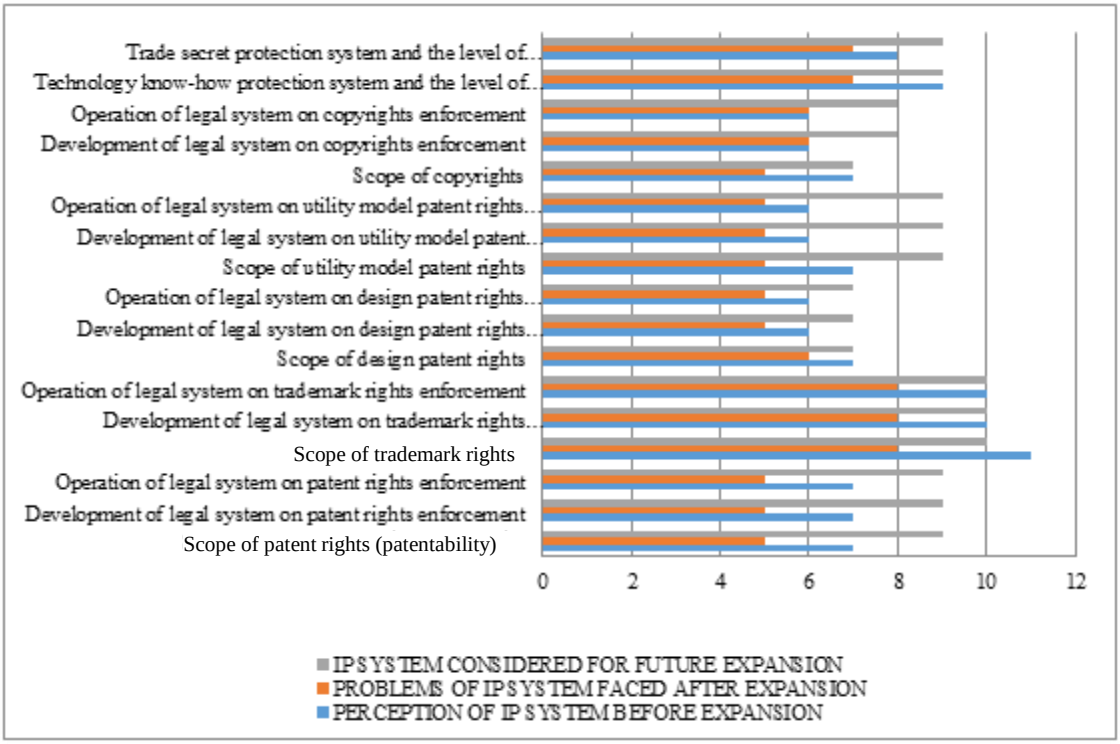
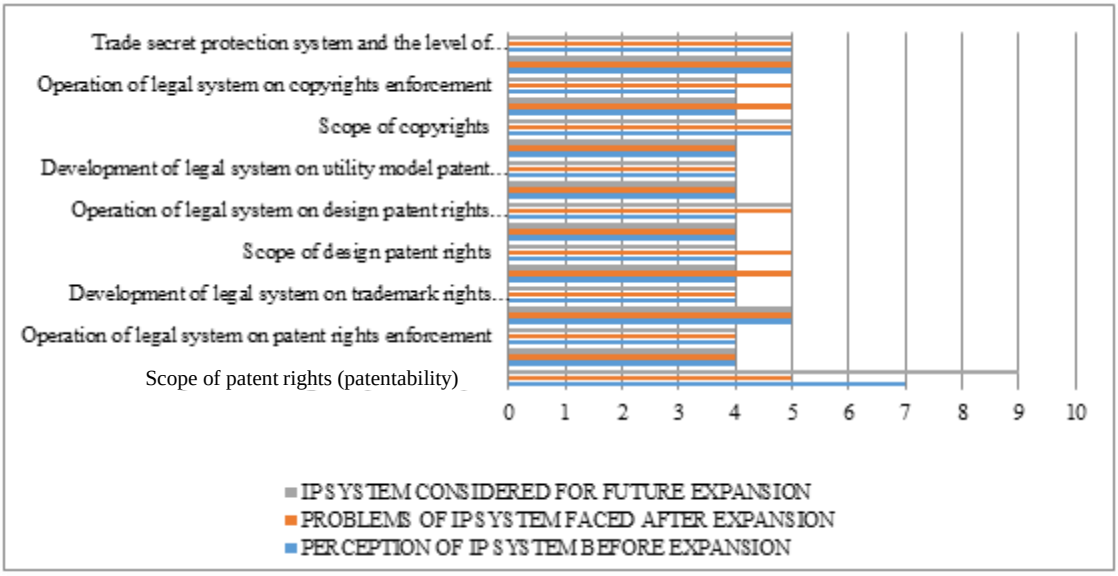


Figure 7.35: Viet Nam 2



・Patent

With regard to specific patent issues in ASEAN (see Figures 7.36, 7.37, 7.38, 7.39, and 7.40), a majority of the companies responded that patent terms, assignment system, invalidation proceedings, corrections, prosecution timelines as well as employer's duty in employees' invention, were not factors they considered in their past and future expansion decisions but these became more important once they had established subsidiaries in ASEAN.

Figure 7.36: Thailand 3

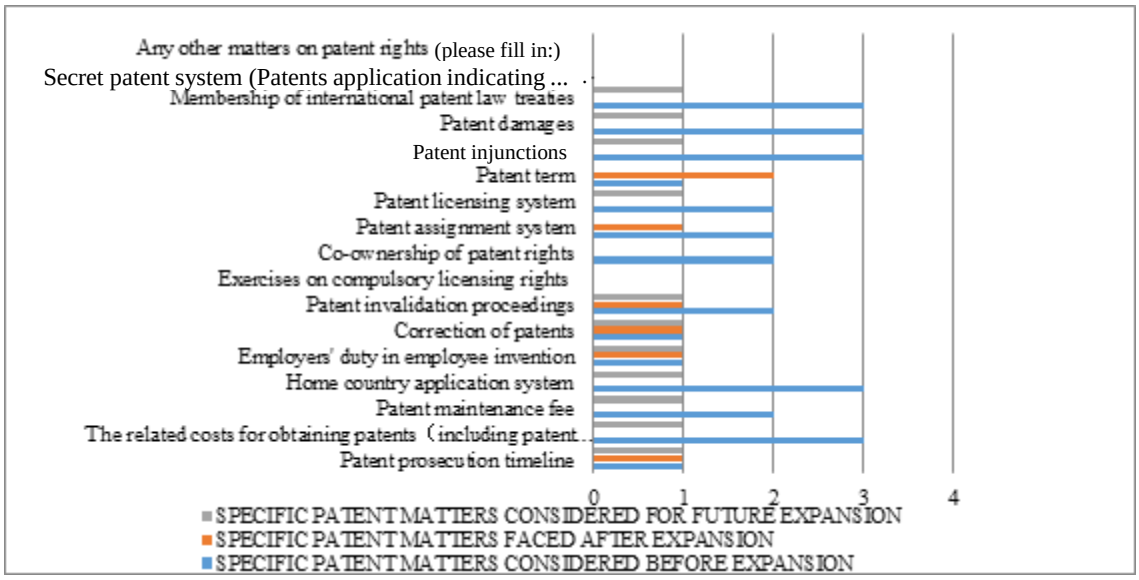


Figure 7.37: Indonesia 3

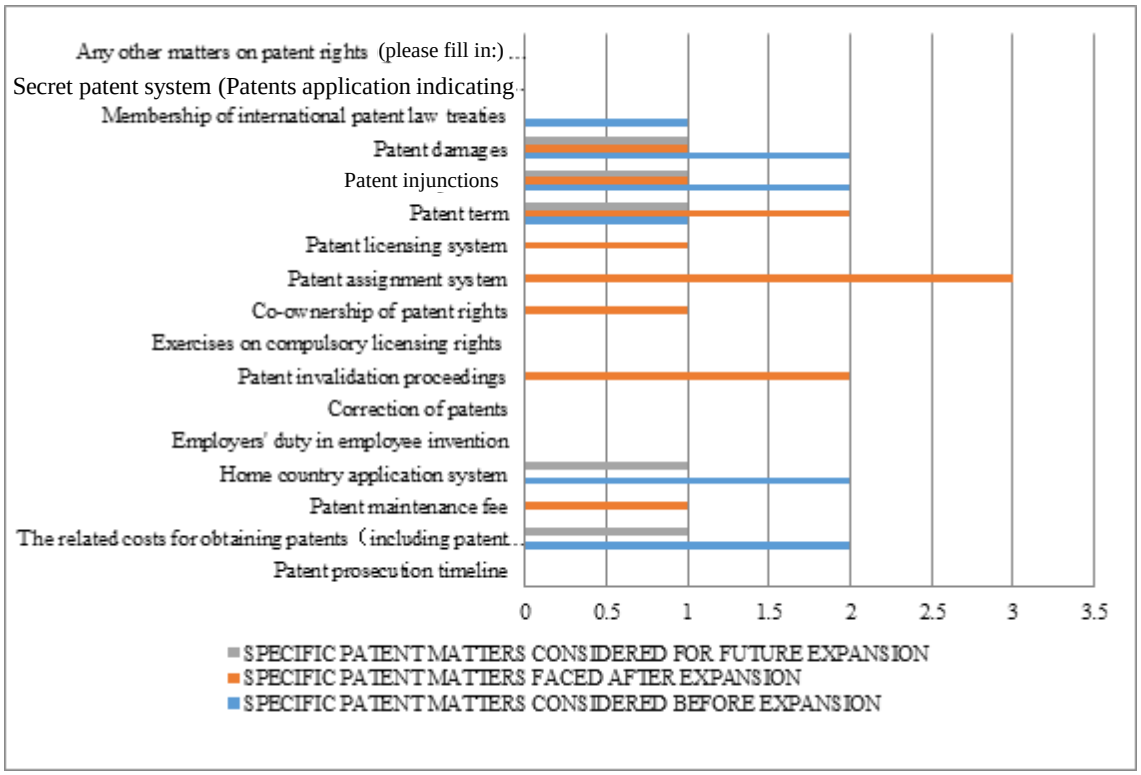


Figure 7.38: Malaysia 3

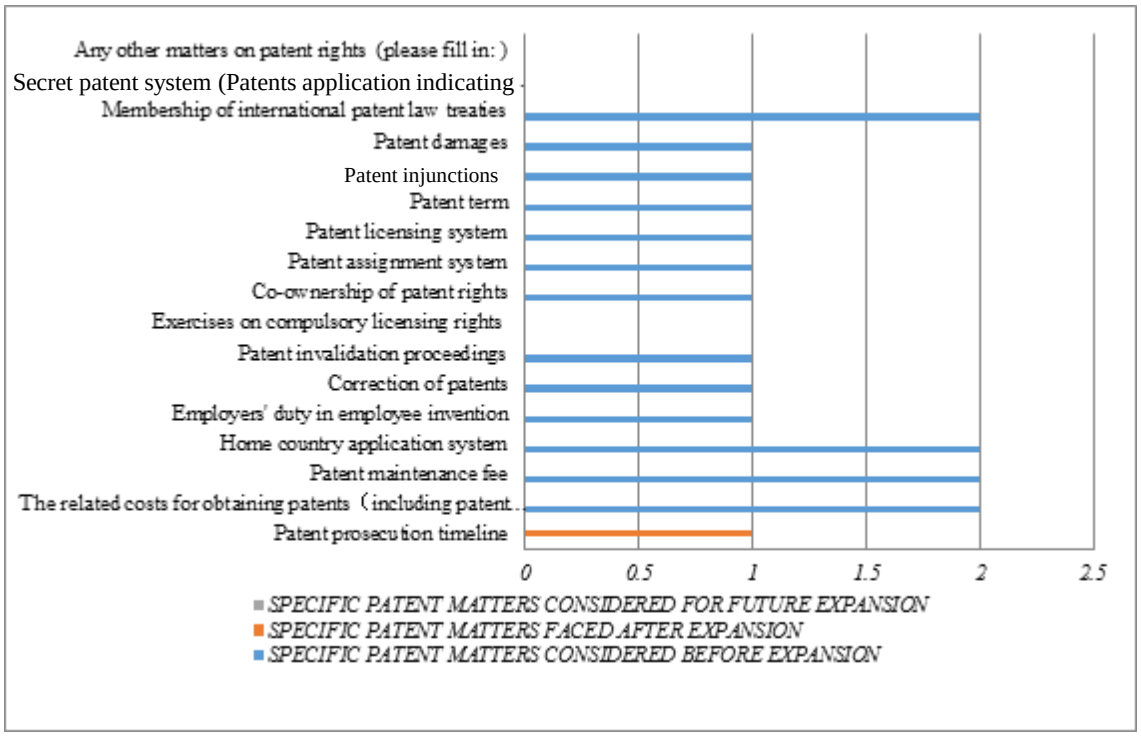


Figure 7.39: Singapore 3

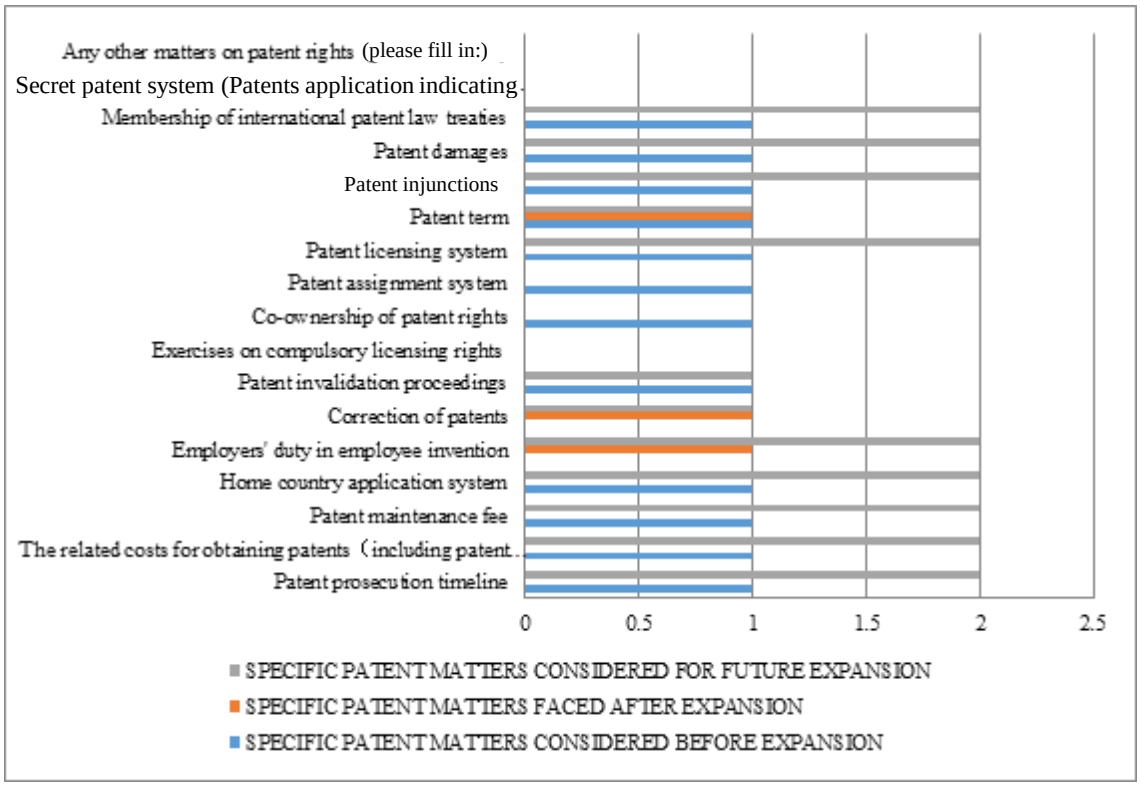
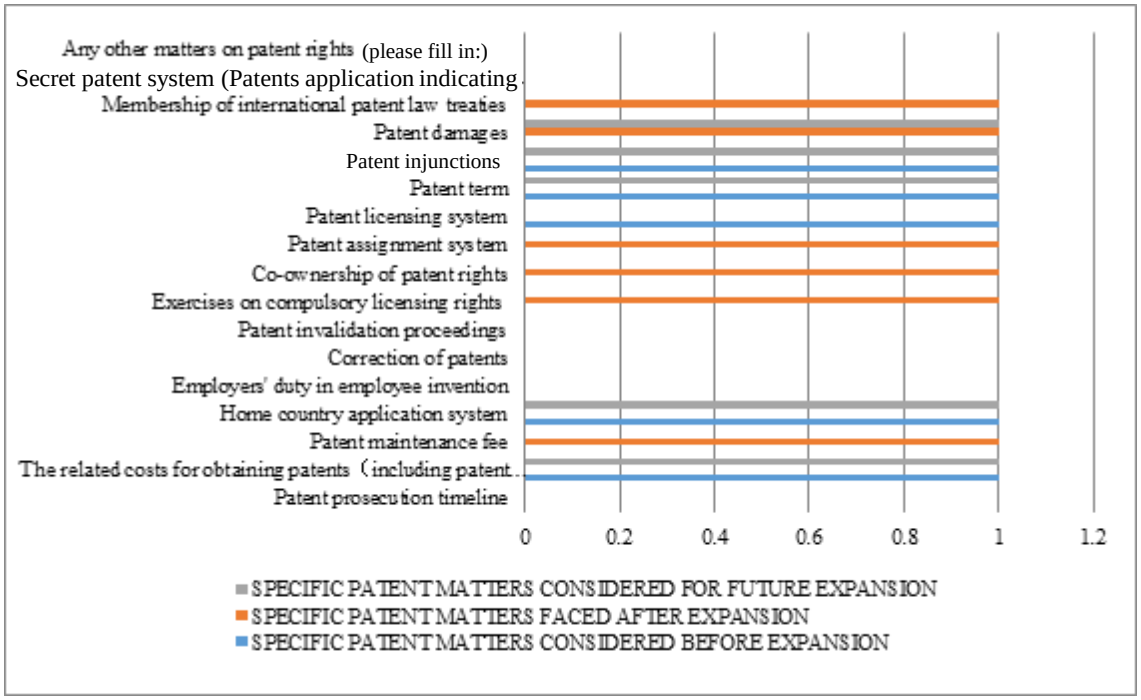


Figure 7.40: Viet Nam 3



・Trademark

Specific trademark issues considered to be key problems by a majority of companies after establishing subsidiaries in ASEAN (see Figures 7.41, 7.42, 7.43, 7.44, and 7.45) were ‘trademark damages’, ‘trademark injunctions’, ‘trademark terms’, ‘trademark licensing’, ‘co-ownerships of trademark rights’, ‘trademark invalidation proceedings’, and ‘the related costs for obtaining trademark’.

Figure 7.41: Thailand 4

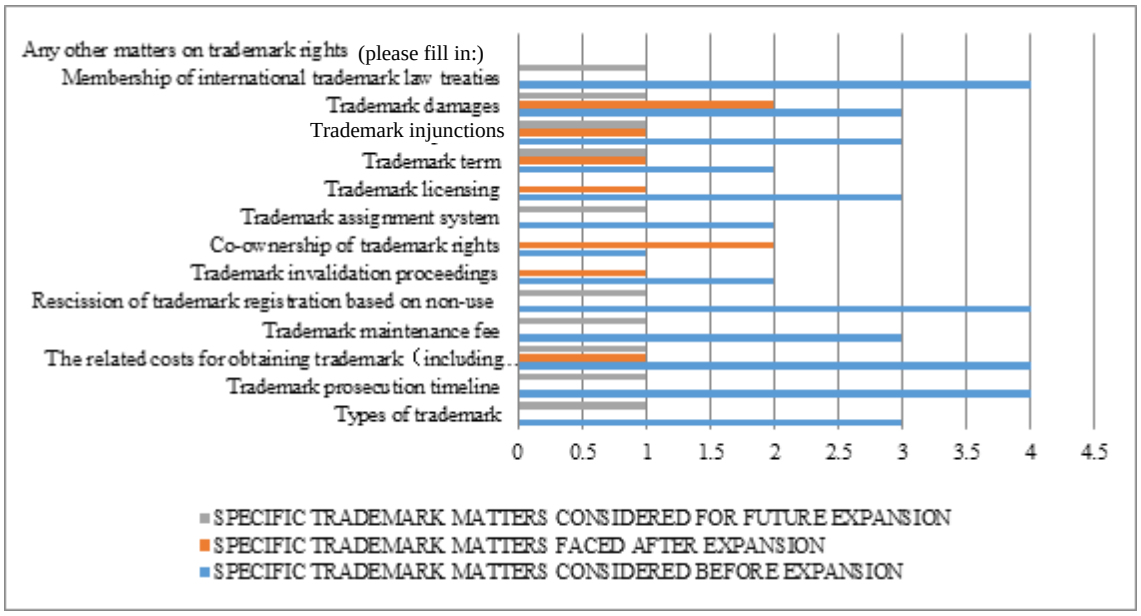


Figure 7.42: Indonesia 4

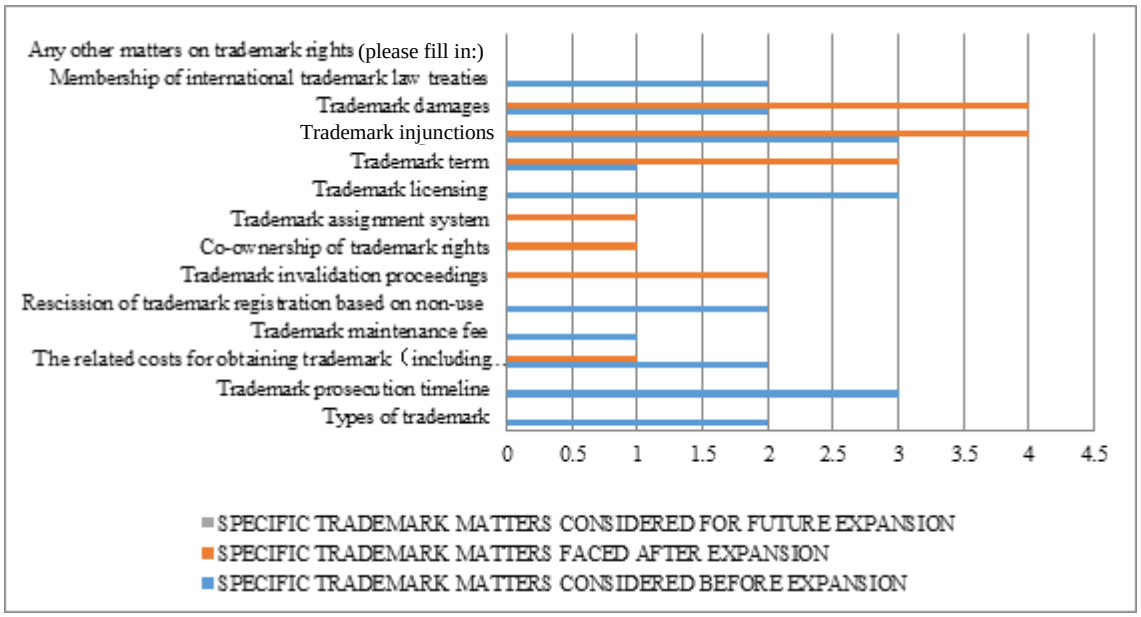


Figure 7.43: Malaysia 4

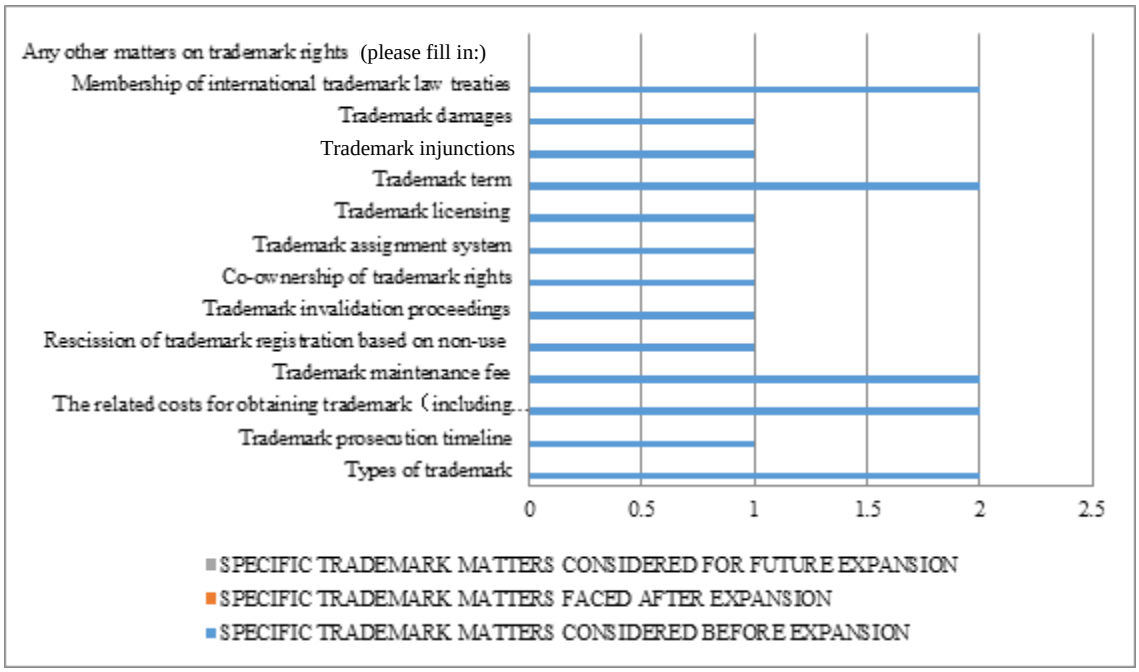


Figure 7.44: Singapore 4

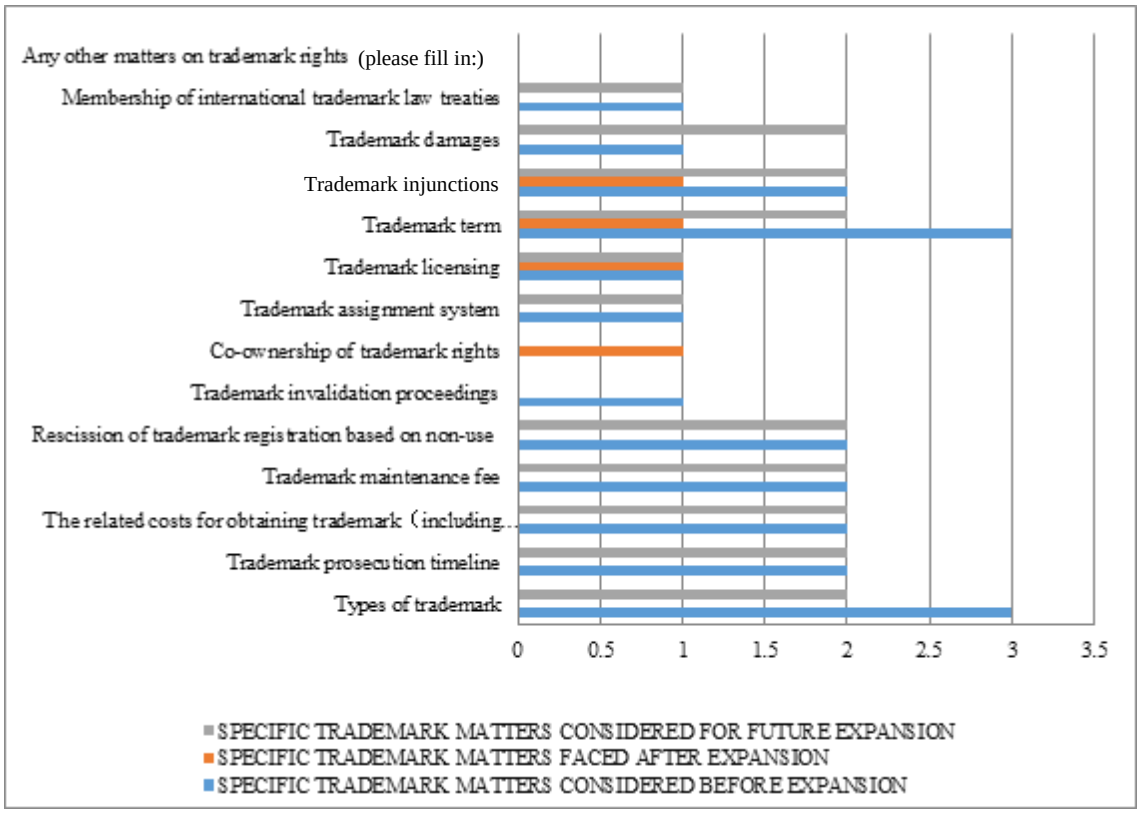
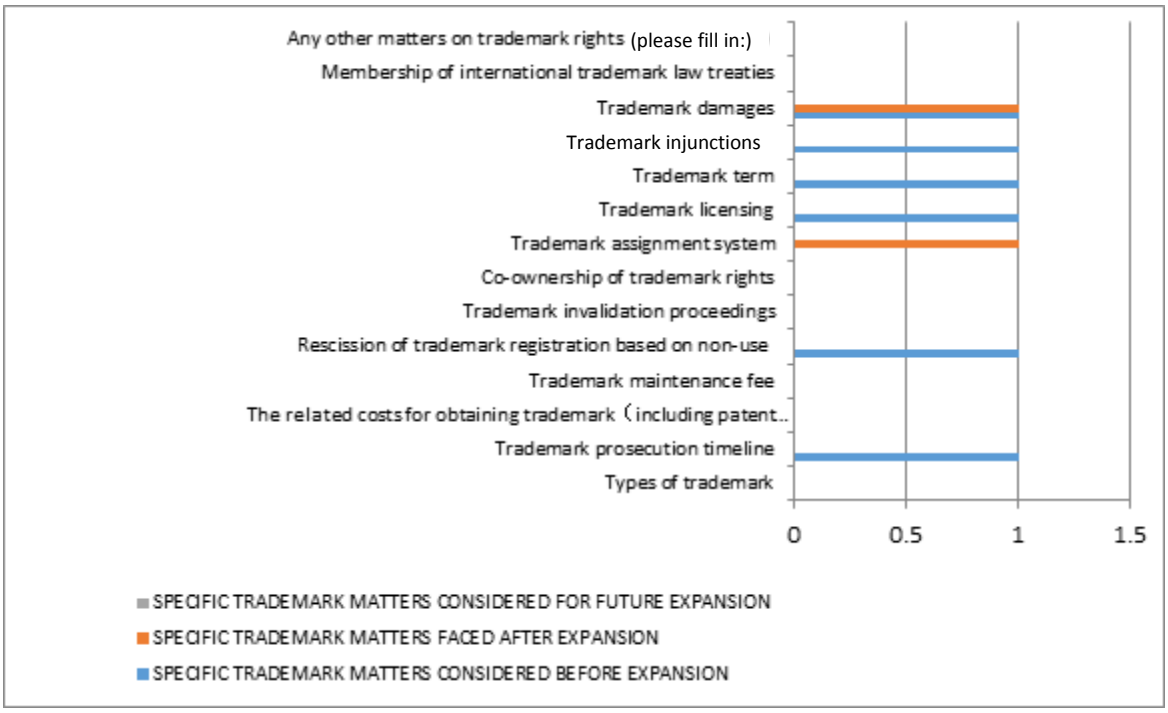


Figure 7.45: Viet Nam 4



・Design patent

Specific issues related to design patent were accorded high importance after establishment of subsidiaries in ASEAN by a majority of the companies (See Figures 7.46, 7.47, 7.48, 7.49, and 7.50). These were design patent term, licensing, assignment system, co-ownership, and protection for a part of a product.

Figure 7.46: Thailand 5

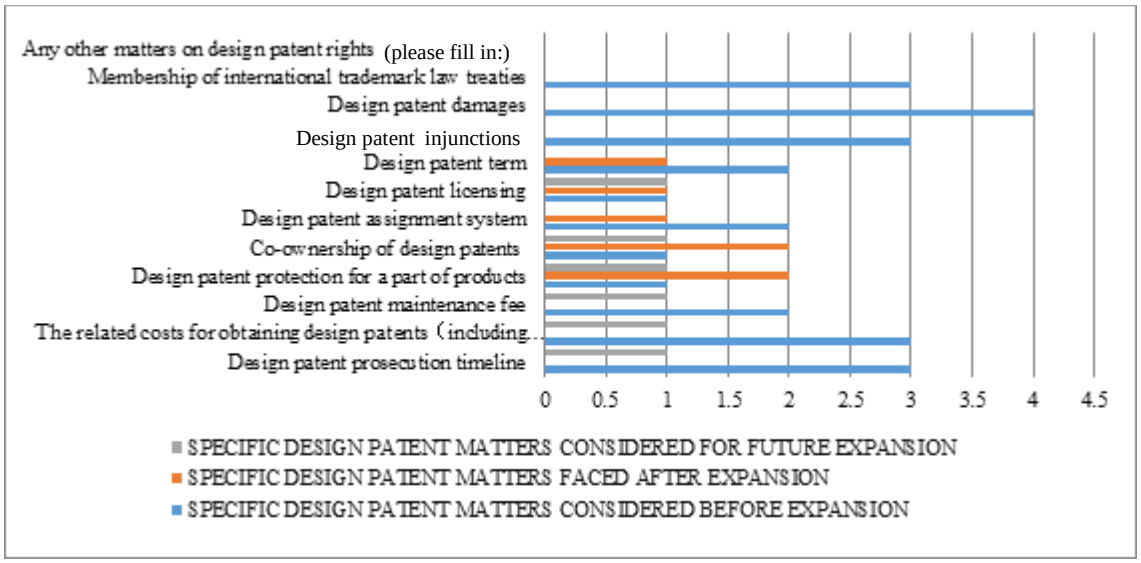


Figure 7.47: Indonesia 5

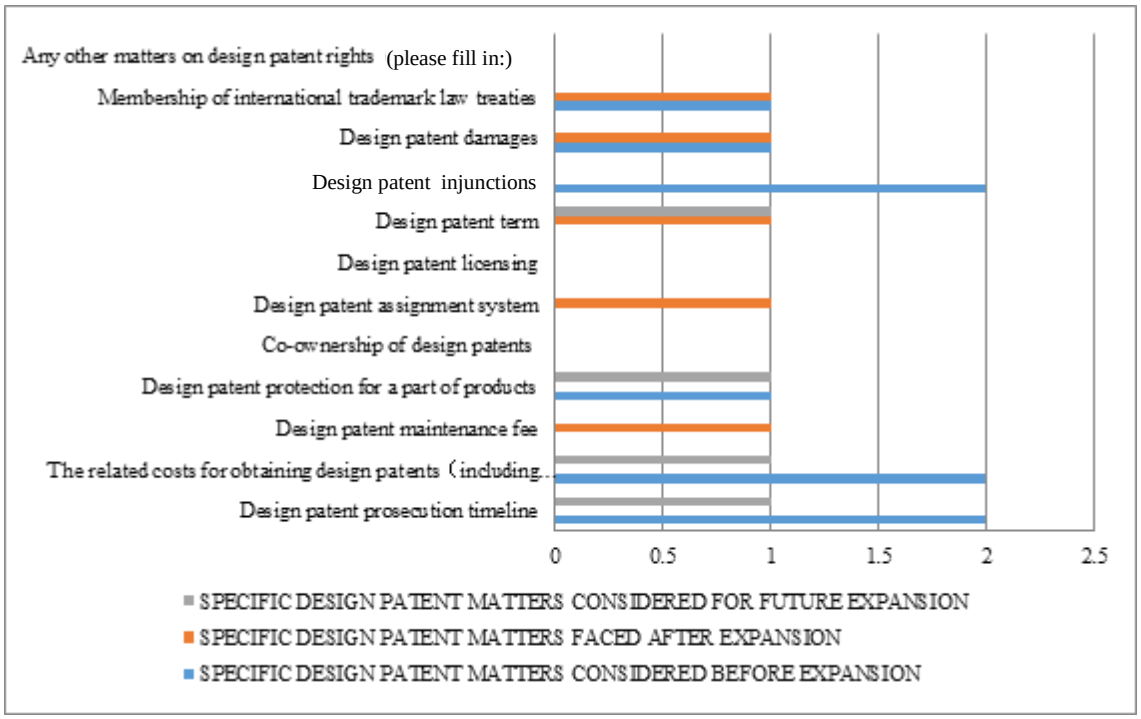


Figure 7.48: Malaysia 5

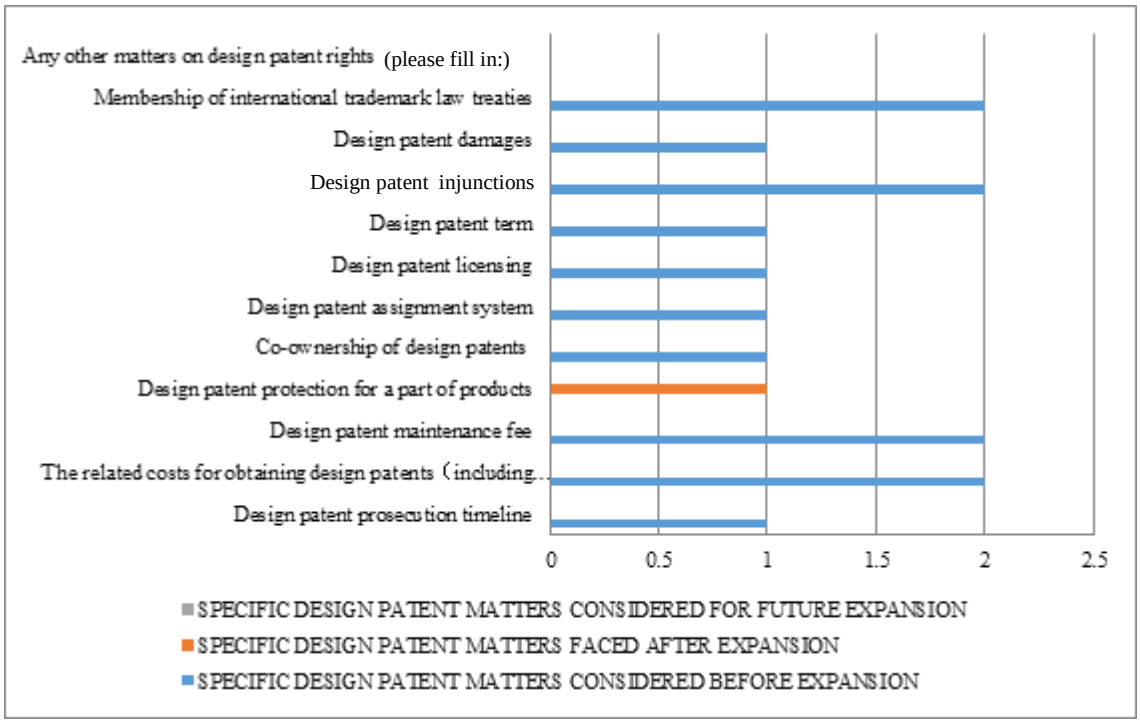


Figure 7.49: Singapore 5

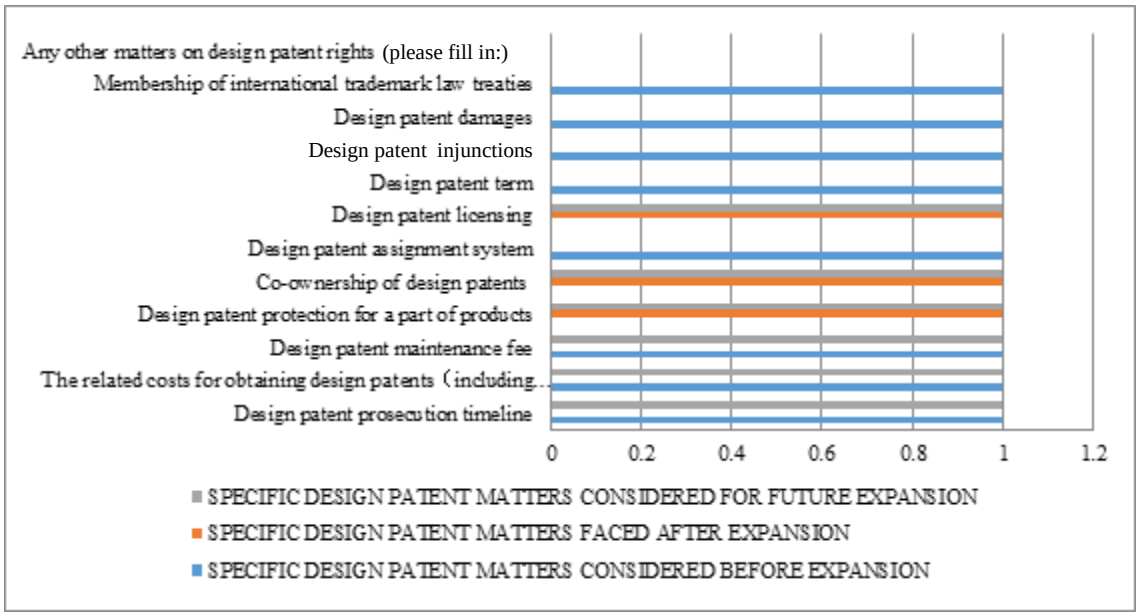
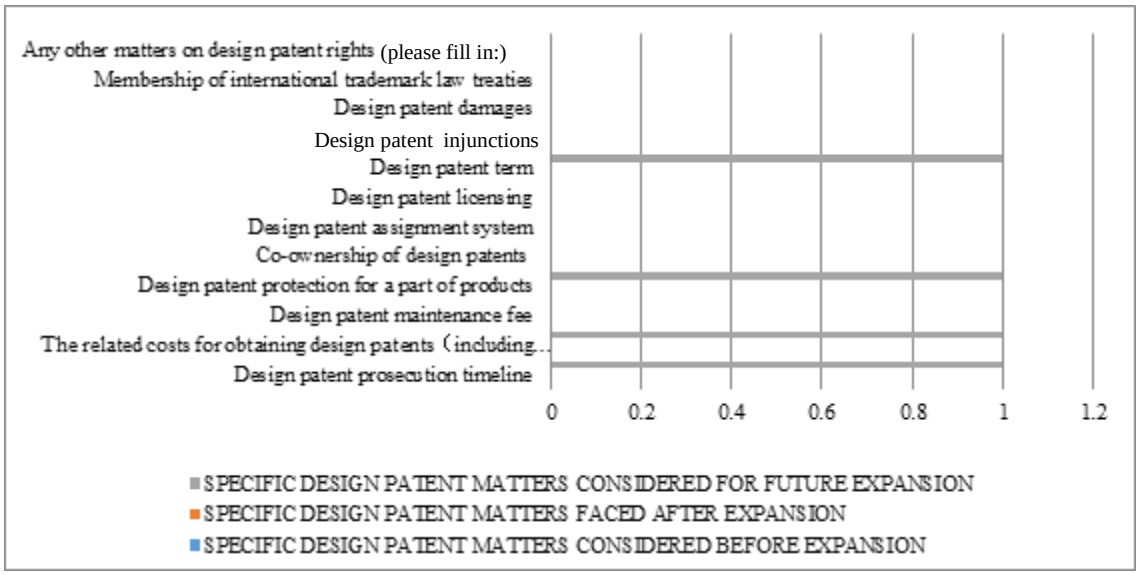


Figure 7.50: Viet Nam 5



・Utility model

After establishing subsidiaries in ASEAN (see Figures 7.51, 7.52, 7.53, 7.54, and 7.55), a majority of companies realised that ‘utility model maintenance fee’, ‘utility model assignment system’, ‘utility model patent licensing’, ‘utility model patent injunctions’, and ‘utility model patent damages’, which had been given little or no consideration as determinants of expansion, became problems after expansion.

Figure 7.51: Thailand 6

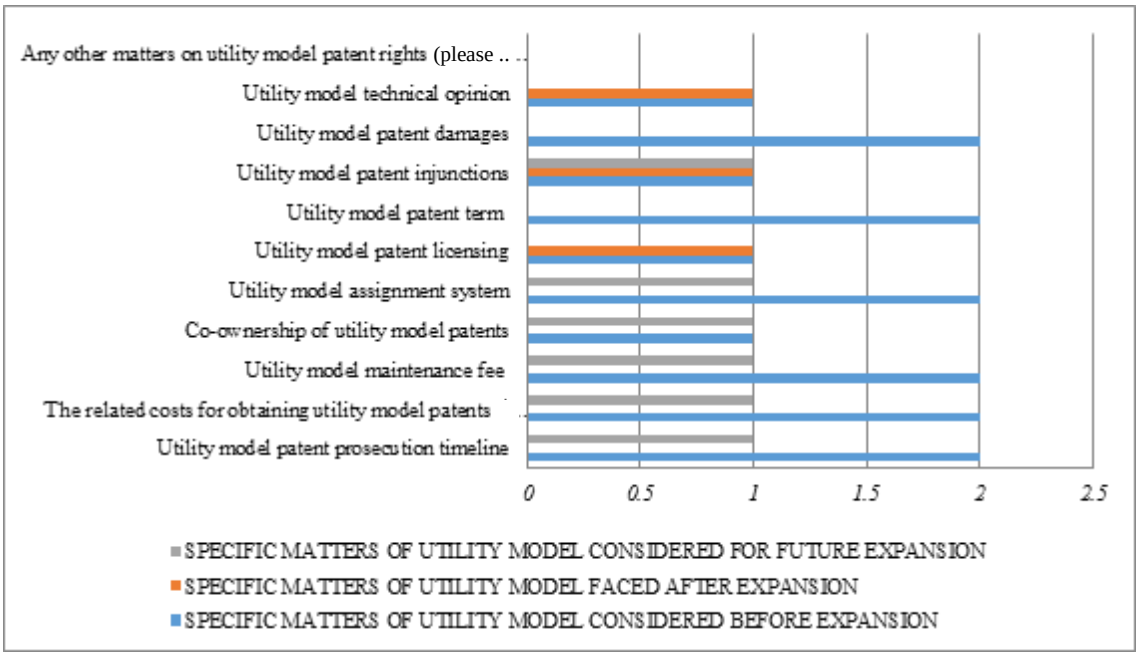


Figure 7.52: Indonesia 6

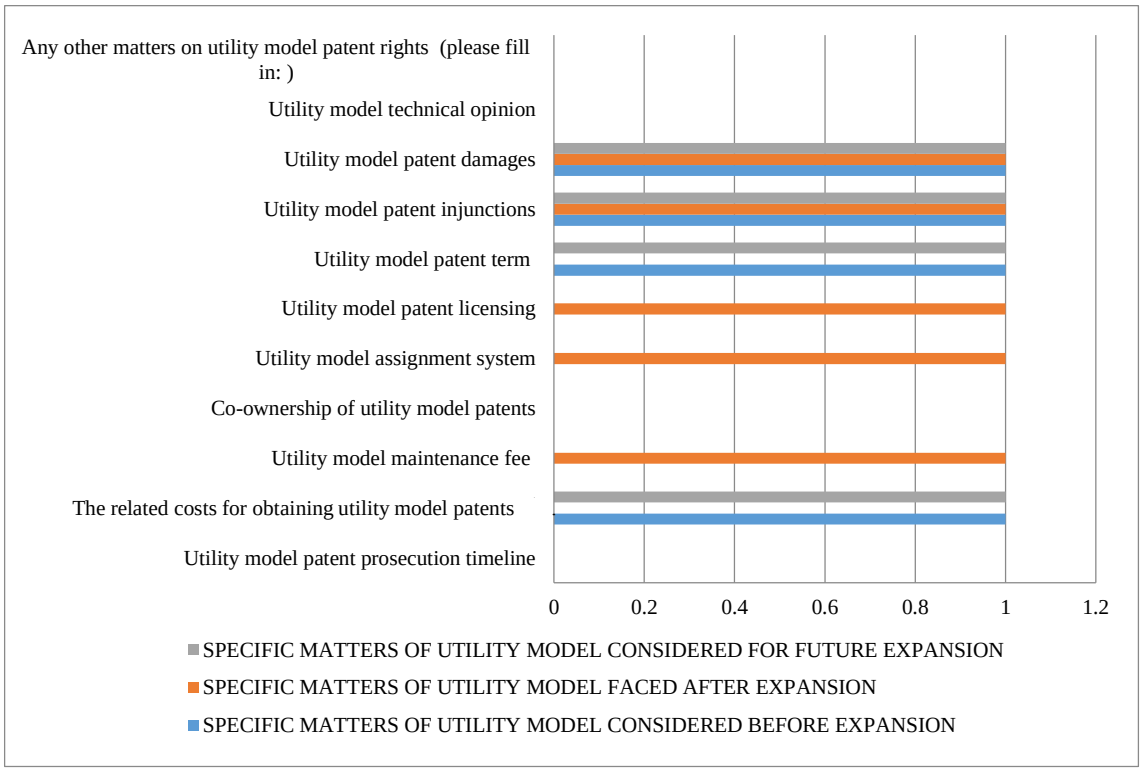


Figure 7.53: Malaysia 6

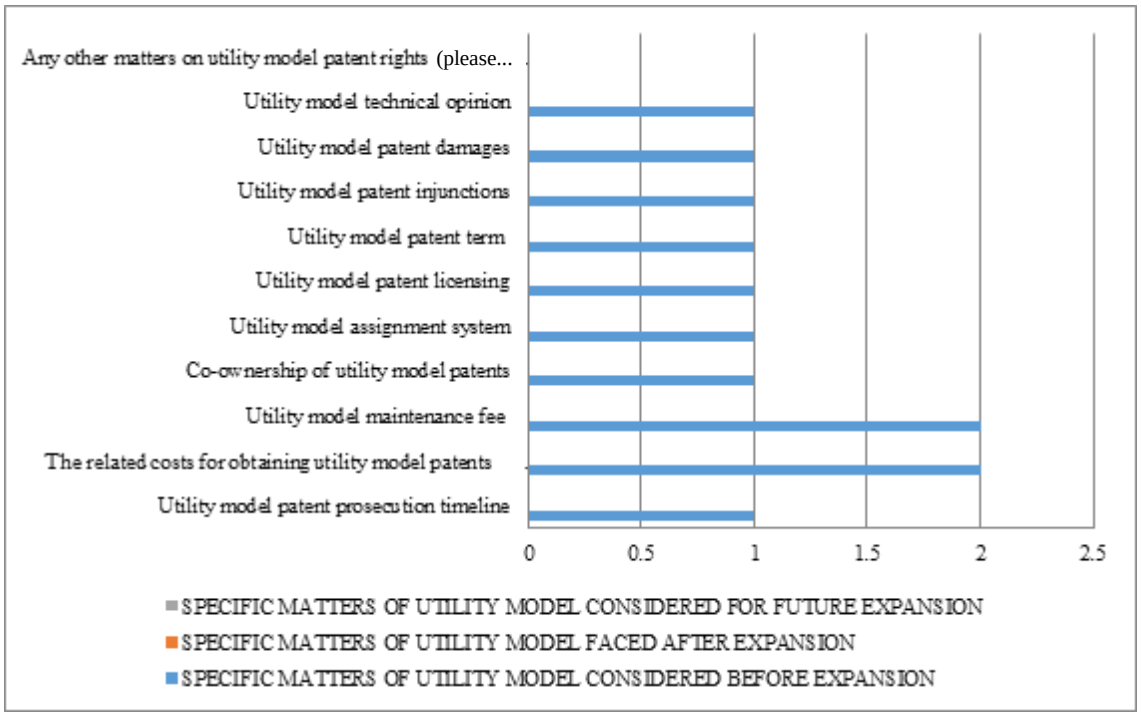


Figure 7.54: Singapore 6

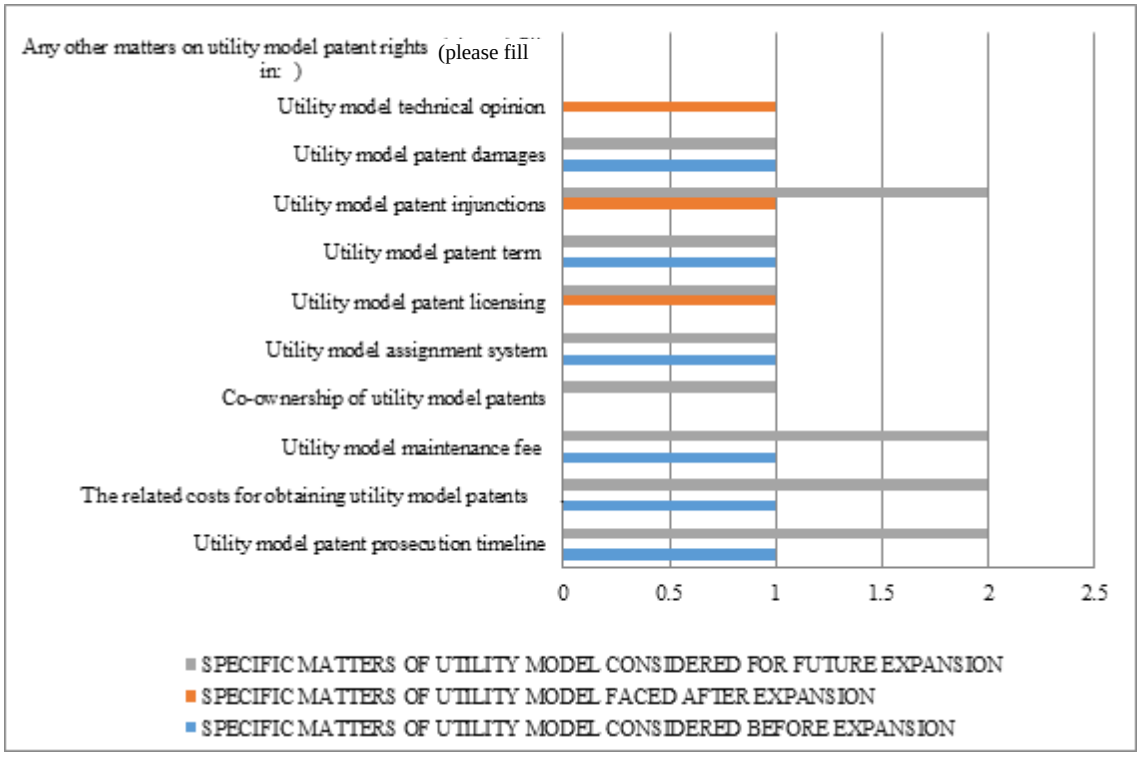
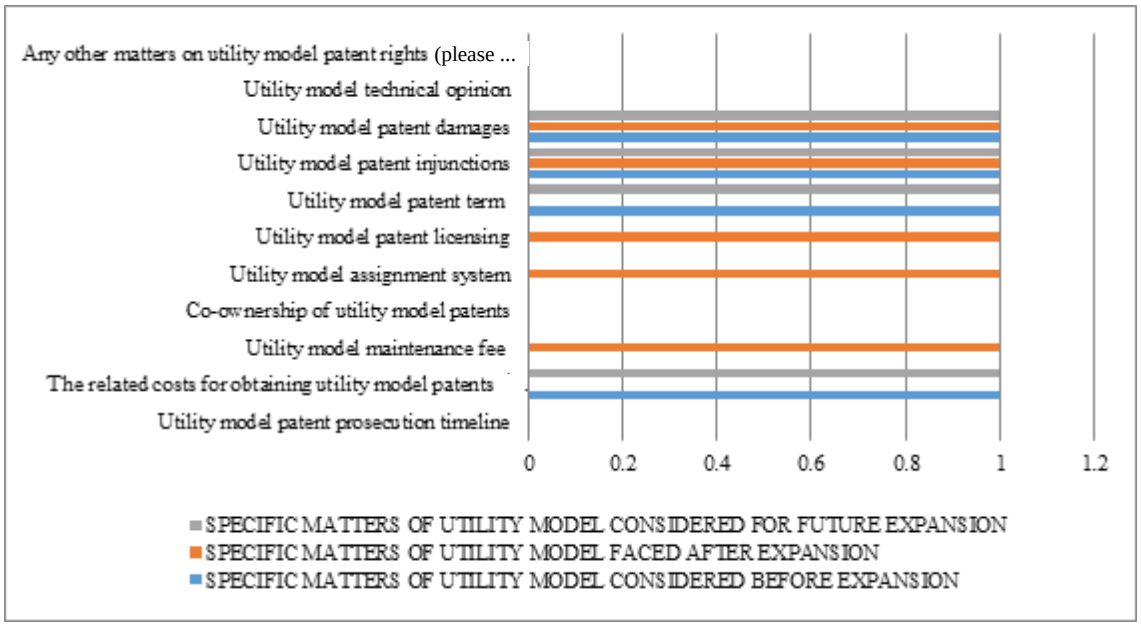


Figure 7.55: Viet Nam 6



・Copyright

Specific copyright problems faced by the companies after establishing their subsidiaries in ASEAN (see Figures 7.56, 7.57, 7.58, 7.59, and 7.60) included ‘copyright damages’, ‘copyright injunctions’, ‘the level of criminal punishment for copyright infringement’, ‘copyright term’, and ‘employee works’. Before establishing subsidiaries, companies gave little or no consideration to these issues as factors for expansion.

Figure 7.56: Thailand 7

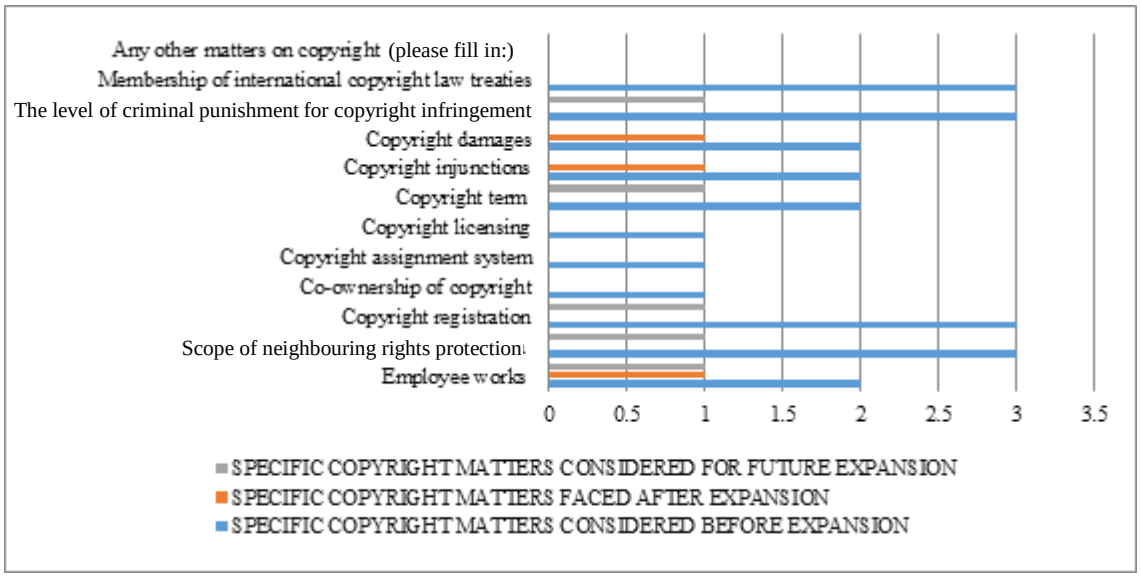


Figure 7.57: Indonesia 7

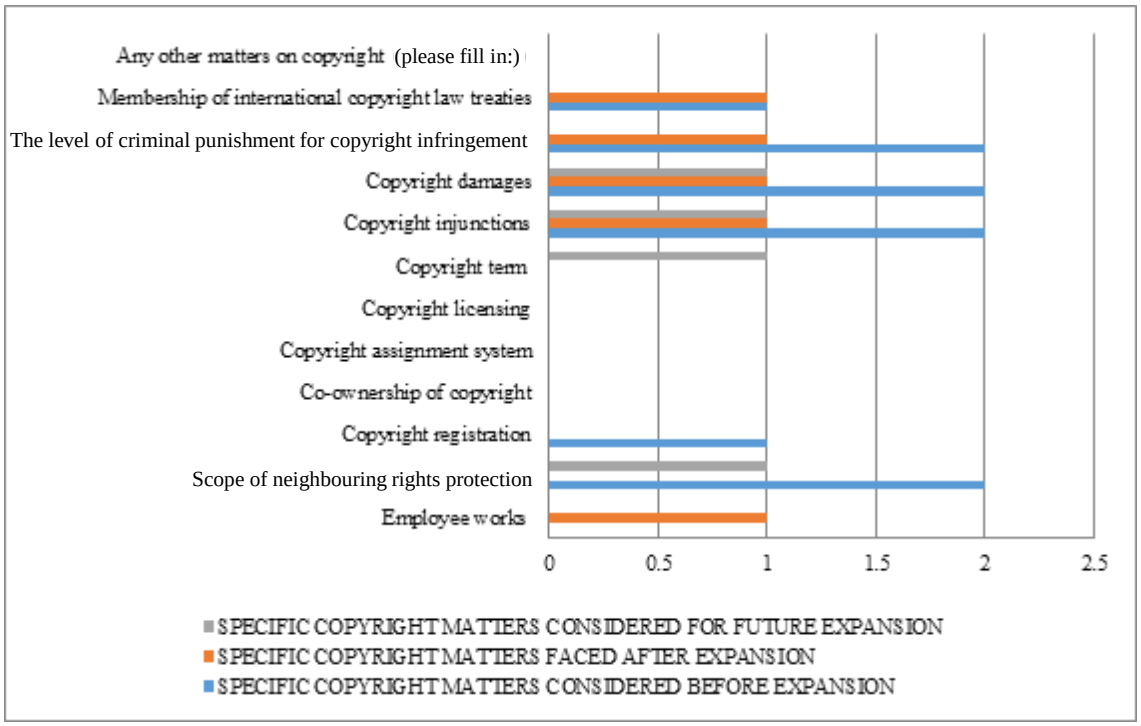


Figure 7.58: Malaysia 7

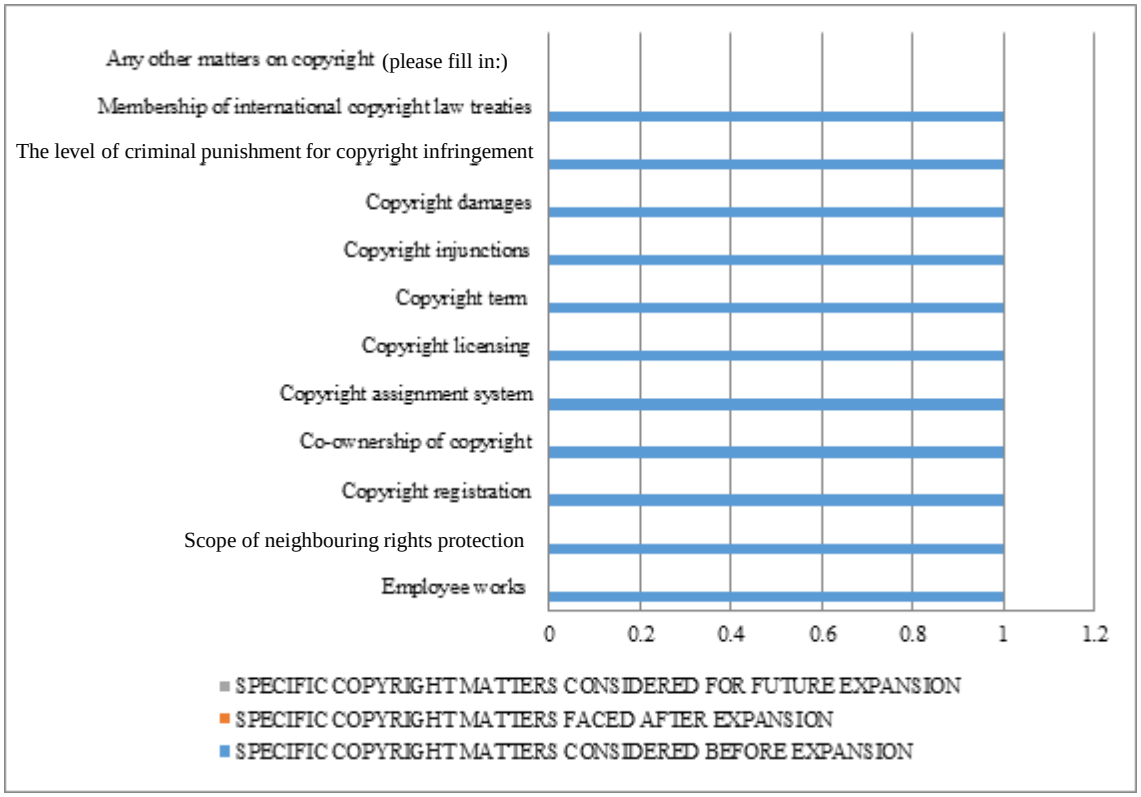


Figure 7.59: Singapore 7

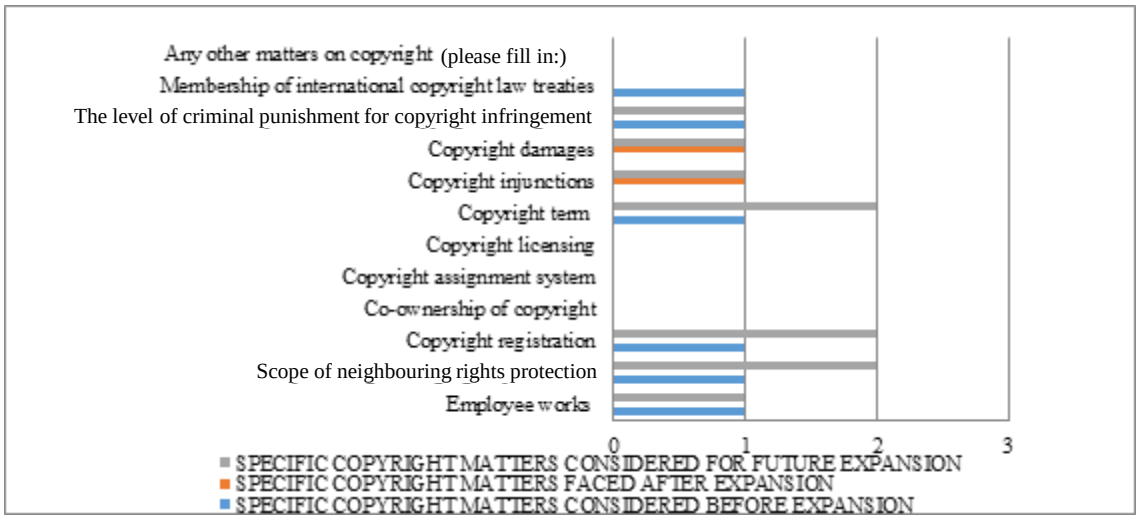
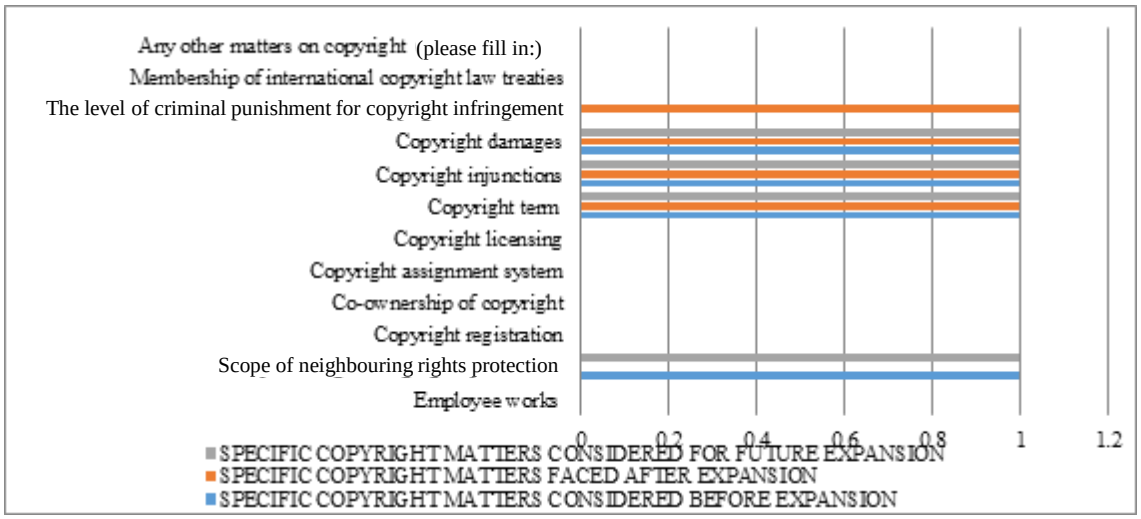


Figure 7.60: Viet Nam 7



・Other IP-related areas

The other specific IP-related issues the companies were faced with after their expansion in ASEAN (see Figures 7.61, 7.62, 7.63, 7.64, and 7.65) were ‘trade secret protection system and the level of protection (not including technology know-how)’, ‘technology know-how protection system and the level of protection’, ‘import and export control for counterfeiting goods (injunctions)’, ‘licensor's warranty obligation’, ‘the invalidity of grant-back clauses assignment-back, an exclusive or non-exclusive grant-backs, reciprocity grant-back)’, ‘rates control for licence fee’, ‘control to licence contracts’, ‘rates control for licence fee’, and ‘licensor's warranty obligation’.

Figure 7.61: Thailand 8

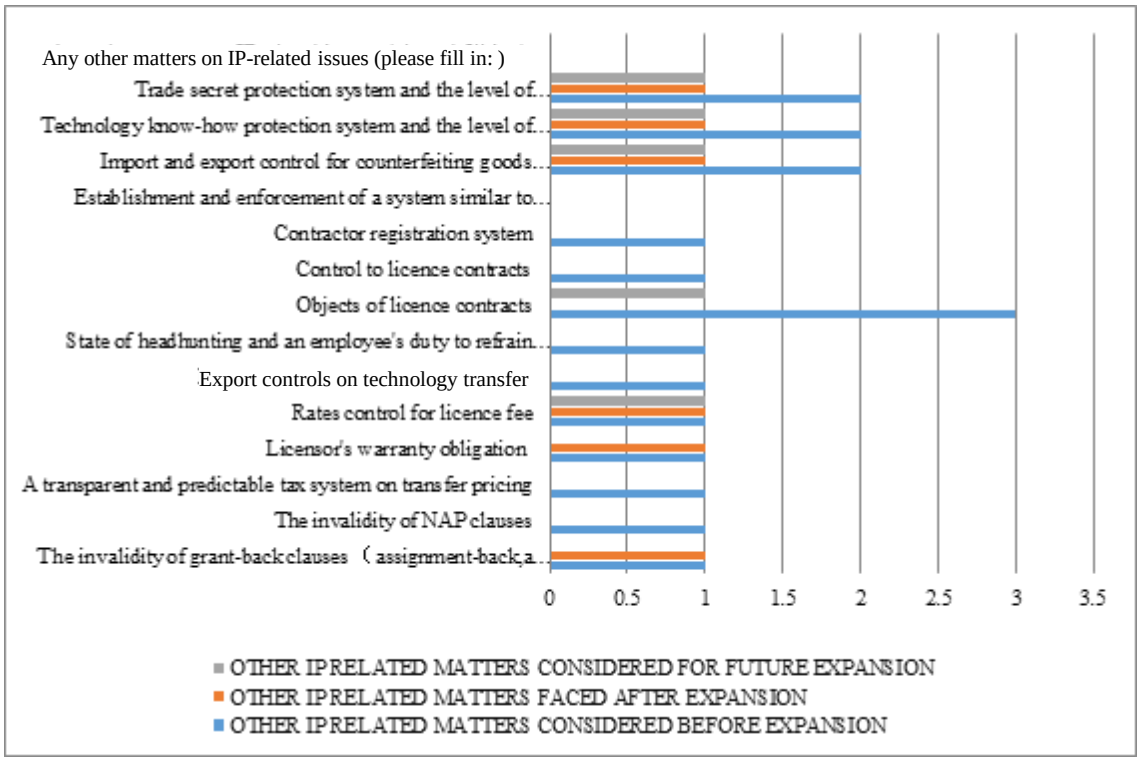


Figure 7.62: Indonesia 8

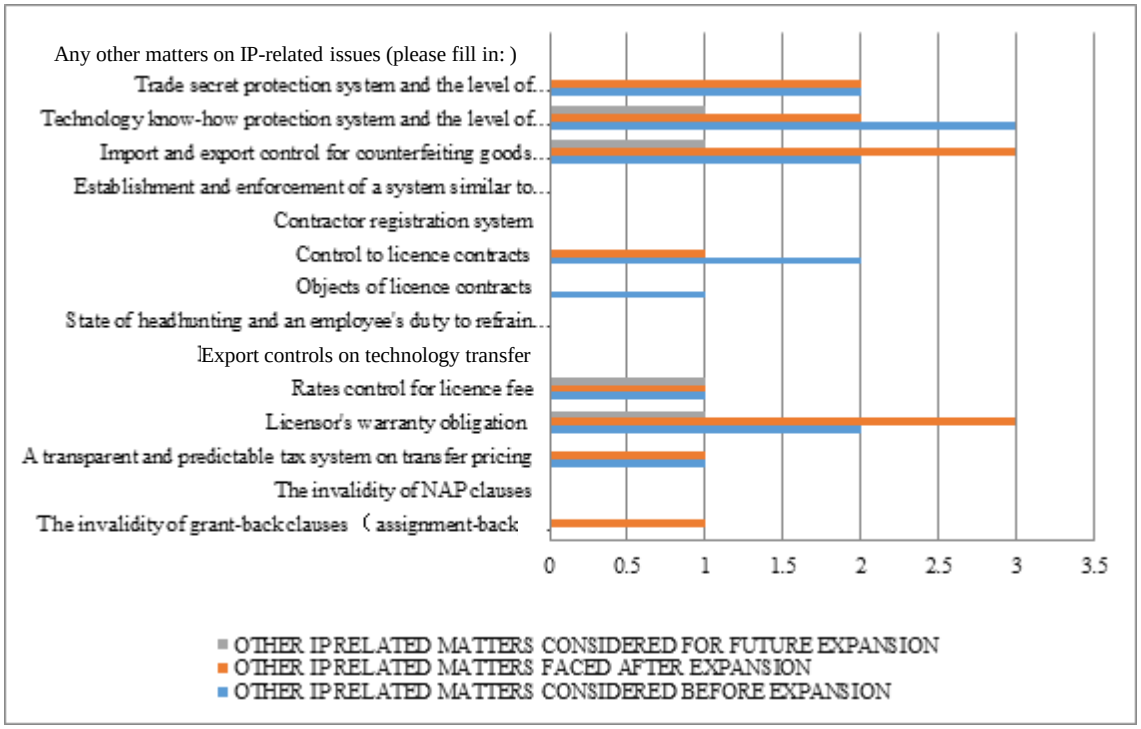


Figure 7.63: Malaysia 8

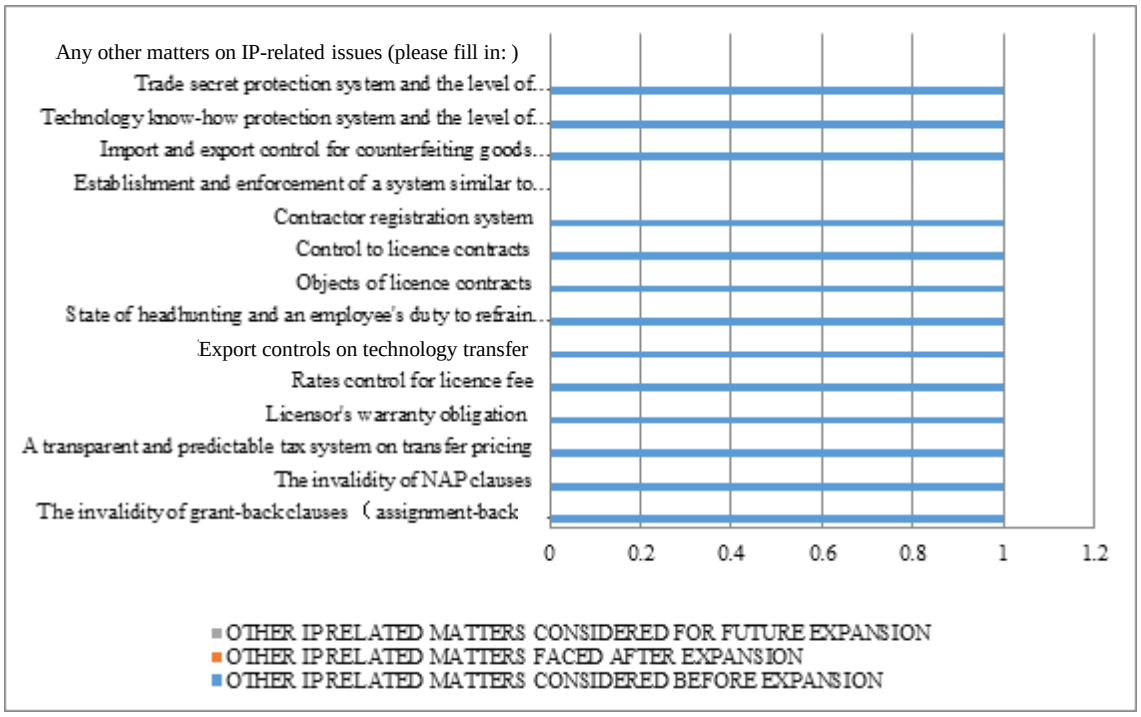


Figure 7.64: Singapore 8

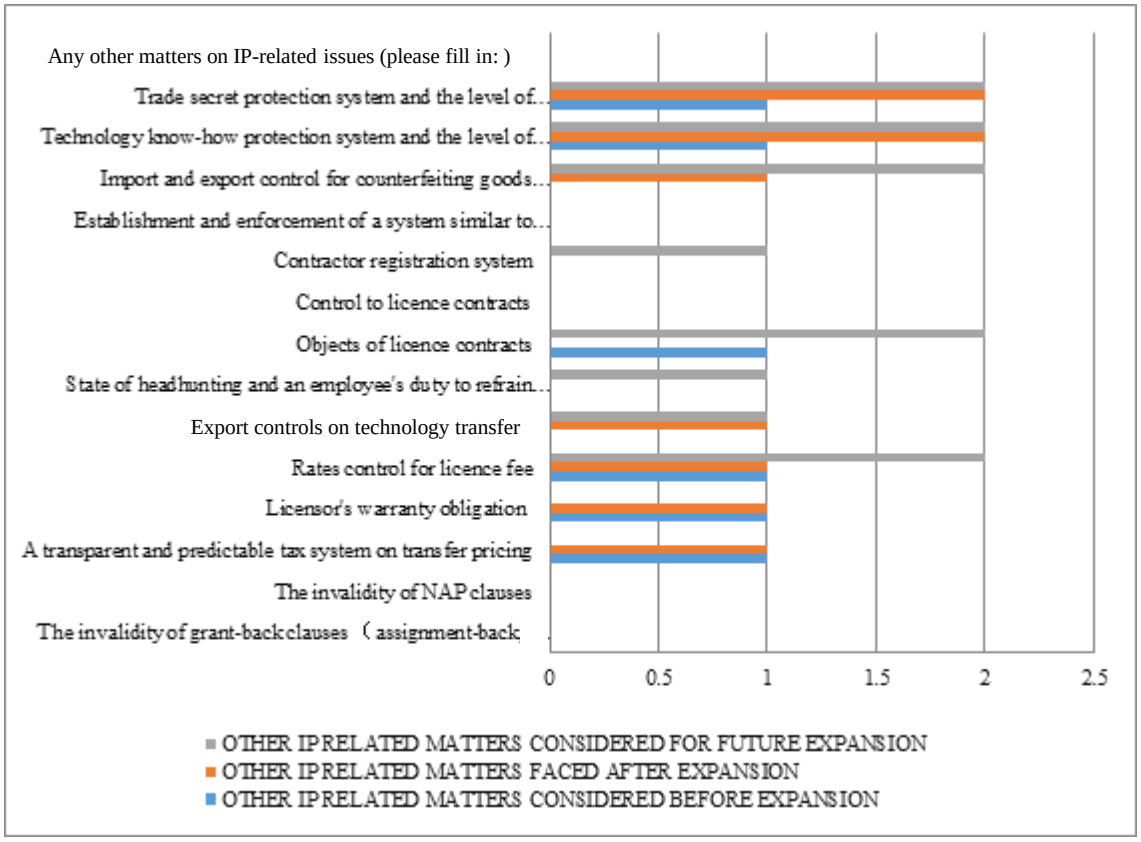
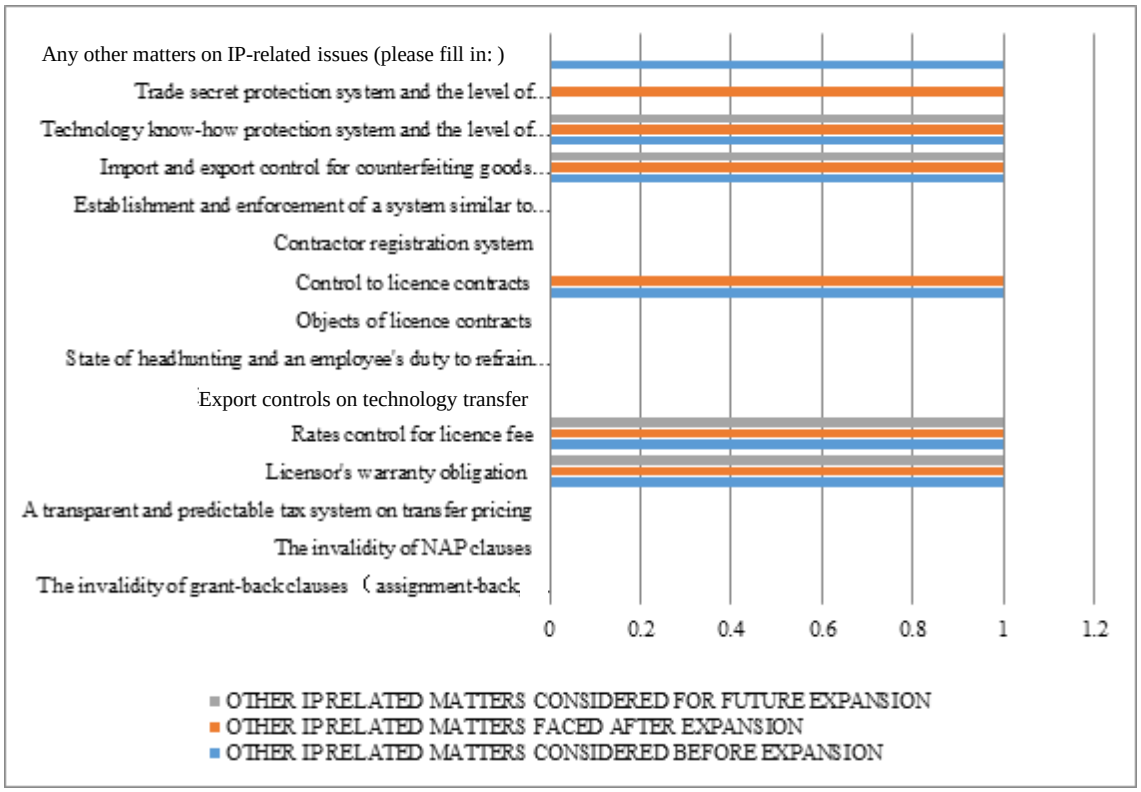


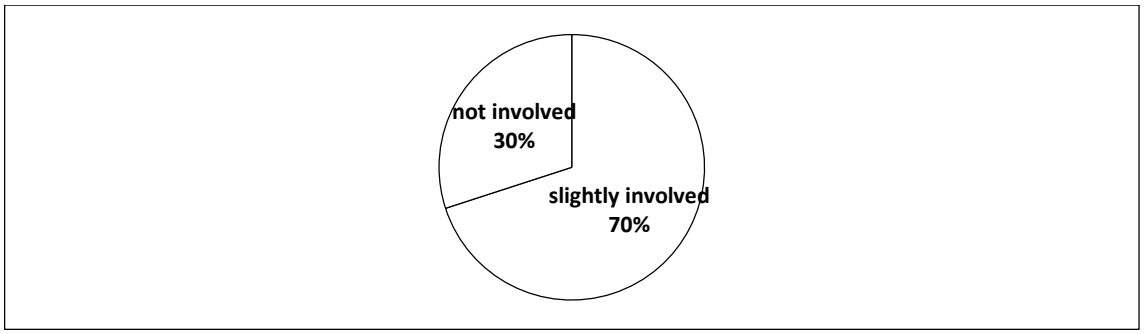
Figure 7.65: Viet Nam 8



6. Involvement of IP Sectors in their Companies' Decision-making for Expansion

Finally, our inquiries into the involvement of IP professionals in the decision-making for expansion of the companies surveyed are in line with our findings presented above. In 30 percent of the companies, IP professionals were not involved in the decision-making process for expansion at all, and 70 percent of the companies acknowledged slight involvement of IP professionals (see Figure 7.66).

Figure 7.66: Extent to which IP Sectors Get Involved in Decision-making



7. Summary of the Survey

The current status and problems of ASEAN IP laws and policies as reflected in this survey are as follows:

Overall, Korean companies operating in ASEAN countries paid relatively more attention to trademark-related issues such as ‘scope of trademark rights’, ‘development of legal system on trademark rights enforcement’, and ‘operation of legal system on trademark rights enforcement’. Our finding that trademark-related issues are ranked highly in terms of importance by a majority of Korean companies appears to because most Korean companies operating in ASEAN are engaged in sales and distribution rather than in manufacturing. Interviews with executive officers of those companies clearly demonstrated differences in interests and attention between sales-oriented subsidiaries and manufacturing ones. There also seem to be some differences of interests depending on the industries to which companies belong.

Regarding specific issues of IP, a majority of companies regarded a variety of IP issues, especially damages and term of protection, as more important to their business. Interestingly, however, regarding copyright issues, they viewed criminal remedies as more important than other civil issues. The difference in issues depending on the type of IPR appears to reflect the fact that copyright infringers are mostly individuals, and infringers of patent and trademark rights are mostly companies.

Other than patents and trademarks, which require registration, all Korean companies showed an interest in protecting their trade secrets, import and export control against counterfeit goods, rates control for licence fees, and other related administrative regulations.

The issues a majority of companies regarded as important changed from the time they were thinking about expanding their business into ASEAN to the time when they had

actually established subsidiaries and were pursuing their business activities there. Amongst a variety of issues relating to IP, a majority of companies regarded cost of registration, international treaties, and other relatively abstract issues before establishing their subsidiaries in ASEAN as important. But once they were carrying out their actual business activities after establishment, they were more concerned about the terms of IP protection, damages, injunctions, and more practical issues in each jurisdiction.

In retrospect, most Korean companies realised they had not seriously considered IP matters when they decided on investing in ASEAN. Thus, their in-house and IP lawyers had not been involved in the decision-making process for expansion.

CHAPTER 8

US and EU Companies in Singapore

1. Profile of Companies

Seven companies from industries, such as consumer electronic products, equipment and machineries, technology hardware, and storage and peripherals, participated in the study in Singapore. First established in North America, Europe, and Japan, these companies have been operating in Singapore for different periods of time, with the youngest operating in Singapore for about 10 years and the oldest more than 50 years. Over the years, these companies have expanded their foreign direct investment (FDI) in Singapore, typically starting with sales and marketing, then production and finally R&D.

Overall, our study suggests that there is no major problem with the IP system in Singapore. In fact, many interviewees expressed that the IP system in Singapore is well constituted, on par with international standards. As the managers we interviewed typically also oversee regional operations, they shared the insights on business and IPR issues related to establishing subsidiaries in the region. Before describing them in detail, let us briefly review the profile of the participating companies.

1.1. Equipment and machineries industries

The two companies surveyed in this study have a long history of R&D in Singapore. They have been conducting manufacturing operations in Singapore for decades and their R&D centres are set up as a regional hub in Asia so they have closer access to their bigger markets in neighbouring countries like Malaysia and Thailand. Companies in this sector do file patents in Singapore and have dedicated in-house expertise to do so. This sector is attracted to Singapore because of the research environment and the various schemes that the government has put in place to encourage R&D. Clearly, FDI of this R&D nature requires a good IP system.

1.2. Industrial conglomerates

Industrial conglomerates refer to MNCs that have many product divisions and sell to both end consumers (i.e. B2C) and other companies (B2B). In this study, three companies responded to the survey. To these companies, sales volume is a very important consideration when deciding to enter a market. Compared with other countries, Singapore is a small market and, therefore, IP protection in Singapore is often not their main concern. Rather than for market reasons, these foreign companies first came to Singapore to establish manufacturing operations, and gradually expanded their role to include venturing to neighbouring countries. Typically, manufacturing know-how is not patented but kept as trade secret as manufacturing does not constitute a major share of the value of their products. Nonetheless, in recent years, some of these companies have established their R&D operations in Singapore and now consider the IP system to be an important factor in their operations.

As a whole, depending on company culture and policies, not all of them will use IP as a major considering factor in setting up offices outside their home countries. As for companies that do consider IP, they are more interested in the cost and the enforceability of filing for IPR. Therefore, they would prefer the government to set up pro-IP owner schemes, such as low cost and good mechanisms to enforce IP law, especially with regard to counterfeit products. They would like to see an effective (fast and easy) mechanism for injunction to carry with regard to counterfeit products. Such companies would also like to increase the damages awarded to the IP owner in case an infringement case is established.

1.3. Technology hardware, storage, and peripherals

The responses we obtained from two companies in this industry were very different. One company files all its patents and trademarks overseas and Singapore is merely a sales location or serves as a regional administration office. The other company thinks that IP is highly relevant when making decisions on FDI. These contrasting approaches may be due to the fact that the business models of the two companies are very different.

As the nature of business in this industry is global and highly depends on the skills of its workers, the legal system needs to be strengthened to provide companies with adequate protection. For example, trade secrets law needs to be comprehensive and enforceable to protect companies' competitiveness in a competitive job market where employees can easily move between competing companies and sometimes from one country to another.

2. Factors Considered Before and After Setting Up New Subsidiaries in ASEAN Countries

Given that all the companies studied established their Singapore operations a long time ago, it is difficult to know their exact IPR considerations at the time of their decision to set up a subsidiary. Nonetheless, the managers, many with very extensive experience, were able to shed light on the factors they considered important.

2.1. General matters

The most frequently cited factor considered before establishing a subsidiary is the 'quality of human capital'. This is not surprising as many of these companies' most recent major investments in Singapore were the establishments of R&D operations, where the capability of manpower is very important. In the past, companies often kept their R&D departments in their home countries, typically in the US, Europe, and Japan. But some of them started to realise that there is a need to conduct R&D and product development in Asia because of the differences in customer requirements. With the fast-growing Asian markets, it is no longer sufficient just to modify products first developed for advanced countries for the Asian markets. To many of these MNCs, Singapore with its well-educated work force and open-door policy has become a very attractive destination for direct investment of R&D nature.

Beyond Singapore, market factors were major considerations for many companies. Market factors also dictated whether these companies applied for IPR. The larger the market, the more likely they made use of the IP system to protect the market. The majority of the companies were concerned with the 'size and the growth rate of the relevant market', 'price level' and the 'ease of establishing sales channels'. During the interviews with the managers, these factors were also cited as their initial considerations regarding FDI, especially when the direct investment was undertaken to set up factories to supply the local market.

Many companies were also concerned with the infrastructure of the country to be invested in. For example, the 'level of legal development concerning intellectual property rights', 'level of implementation and enforcement of intellectual property law', and 'country risk (political, religious stability, disaster, etc.). Many companies reported that implementation (enforcement) of IP is a major issue. For example, in some countries, the IP enforcers might be bribed by the lawbreaker and make collecting evidence difficult. Many

marketing studies have cited country risk as a major concern when deciding on FDI.

For some of the companies interviewed, the convenience of certain administrative measures was a major concern. Matters such as ‘trade barriers or trade friction’ and ‘requirements for operating permit’ were their key concerns, especially when the goods are manufactured in particular countries and shipped to other consumer markets.

When the companies already had established subsidiaries in certain ASEAN countries, the wage level became their major concern, with their concern being mainly to lower the cost.

2.2. IP systems in general

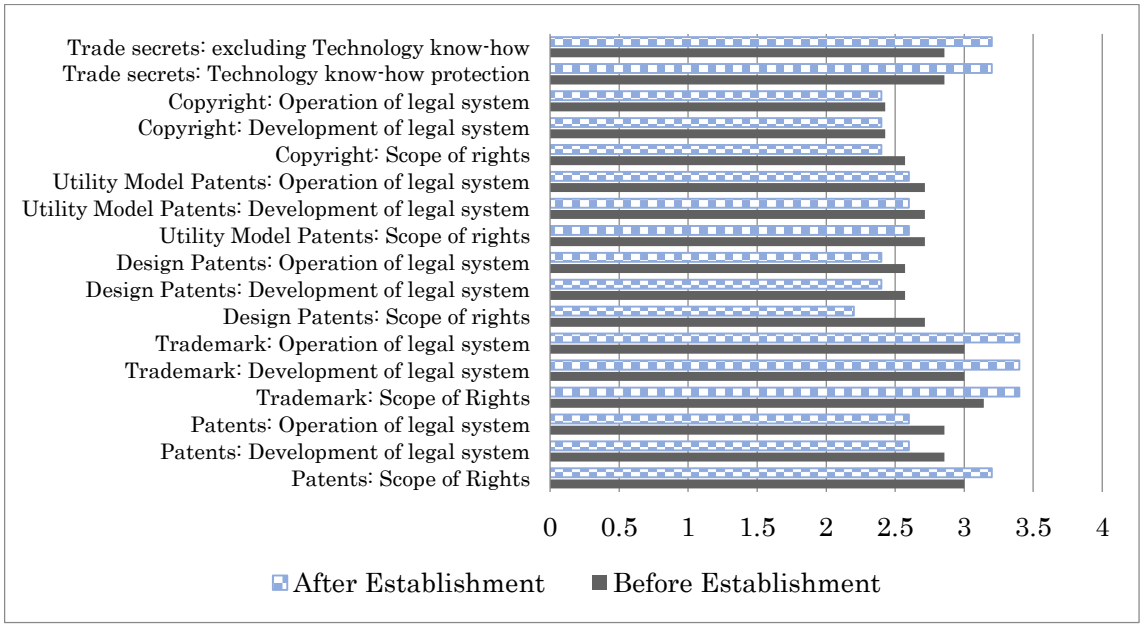
In terms of the perception of the IP system, trademark rights emerged as the major concern, with a score of 3 on a scale of 1 to 5. Issues such as ‘scope of trademark rights’, ‘development of legal system on trademark rights’, ‘enforcement and operation of legal system on trademark rights enforcement’ were amongst the top ranked considerations when deciding on establishing a subsidiary. Concern about trademark rights development and operation became more important after establishment, with a score of 3.5. For example, one of the industrial conglomerates mentioned that their brand names are their key assets. Therefore, infringement of their trademarks will affect their brand values.

At the planning stage, concerns about patents, such as ‘scope of patent rights’, ‘development of legal system on patent rights enforcement’, and ‘operation of legal system on patent rights enforcement’ became more prominent. ‘Technology know-how protection system’ and the ‘level of protection’ also turned out to be the more important considerations at the planning stage. Companies responded by saying that they needed to come up with measures to protect their know-how before factories were built in another country. Simple actions such as surrounding machines by a wall or using a veil to cover up the area where machines are operated and selectively or partially bringing the technology know-how to the new country are needed when they establish factories.

The next top concerns regarding the IP system at the planning stage were related to patents, in particular, ‘development of legal system on patent rights enforcement’, ‘operation of legal system on patent rights enforcement’, and ‘scope of patent rights’. Of those, ‘scope of patent rights’ becomes more important after establishment (the score went up from 3 to 3.2). ‘Technology know-how protection system’ and the ‘level of protection’ also became more important considerations after establishment, with a score higher than 3.

The above observations are based on our survey results, as shown in Figure 8.1.

Figure 8.1: IP System Considerations Before and After Establishment



2.3. Patents

With regard to patents, cost is a major concern. Matters that concerned the companies surveyed were ‘related costs for obtaining patents’ and ‘patent maintenance fee’. Other factors of concern in FDI decisions related to the quality of the patent system, such as ‘patent prosecution timeline’, ‘home country application system’, ‘employer’s duty in employee invention’, and ‘membership of international patent law treaties’. Some companies that were more often involved in patent litigation cited that ‘patent injunctions’ and ‘patent damages’ were important considerations for them.

2.4. Trademarks

Regarding trademarks, typically only companies with large portfolios and with products in the consumer market were concerned with this form of IP. Unlike some consumer product companies that franchised their operations, most of these companies kept the trademarks for their own use and, hence, issues related to co-ownership and licensing did not arise. Comparatively, trademark protection was a greater concern for these companies. As their brands are well known to consumers, many counterfeit products with inferior quality tend to be on the market. Such counterfeit products can severely tarnish the brand value. Therefore, these companies tend to monitor the market closely, cooperating with enforcement agencies to eliminate counterfeit goods from the market. One company in the

technology hardware, storage, and peripherals sector said their main concern was the cost of enforcement, enforceability, speed of judicial process, and availability of reliable local law. In fact, these additional concerns apply to other patent rights too.

2.5. Design patents

As with trademarks, only two companies reported that design patents are important. It largely depends on the nature of products that these companies are involved with. Licensing, assignment, and co-ownership of design patents have not been major concerns for these companies, but the other intrinsic elements of the patent system, such as prosecution timeline, cost, and damage awards, do matter.

2.5.1. Utility model

Regarding utility model patents, cost is the major concern. As in the case of design patents, only two companies reported that these were important to them.

2.5.2. Copyrights

Copyrights did not contribute to the decision-making process concerning establishing subsidiaries. This might be because the companies that took part in this study were technology companies and they do not use copyrights to protect their inventions.

2.5.3. IP-related matters

Some other IP-related matters that were cited relate to ‘export controls on technology transfer’, ‘state of headhunting and an employee’s duty to refrain from competition’, and ‘import and export control for counterfeiting goods’, such as allowing injunctions. Companies interviewed mentioned that counterfeit products are their major concern in some foreign countries.

3. Changes in Foreign Direct Investment and IPR

Over the years, Singapore has evolved from a manufacturing-based economy to a knowledge-based economy, where services and high value-added manufacturing play an important role. In tandem with this, the nature of foreign investments in Singapore has also changed. In the following paragraphs, we will present the evolution of FDI and its impact

on IPR.

Singapore has been a natural choice for many global companies as the first or early entry point in Southeast Asia because of its prominence and long-standing position as a major port for trades in Asia. Amongst the companies we studied, some can be considered pioneers as they have been in Singapore since the 1950s. Typically, these companies started off with a small sales operation and gradually moved into large-scale production (usually for overseas markets) before moving into R&D and product development. For most of the MNCs surveyed considering setting up a factory, factors such as the cost of labour, the costs of setting up a factory, and tax incentives were the major factors that attracted them to Singapore. The Singapore government encouraged the growth of industries by setting up factories that have low rental and by giving generous tax exemptions. For example, the Economic Expansion Incentives Act introduced in 1967 allowed a tax exemption as high as 90 percent on the increased export income of companies that managed to grow their exports. Relatively speaking, IPR did not feature highly in FDI decisions at that time.

As the economy became more capital and technology intensive, the political stability of the country, the strong legal system with good enforcement mechanisms, and the quality of the workforce started to take priority over labour costs. These MNCs, especially the industrial conglomerates, started to conduct R&D in Singapore. This trend was accelerated by the government's efforts to establish local R&D by setting up public research institutes, offering funding support to corporate R&D, encouraging knowledge sharing and transfer between research institutes and industries, and training many skilled workers in new areas such as biotechnology. These new initiatives led not only to establishment of R&D by companies that already operate in Singapore, but also resulted in new FDI, i.e. MNCs entering Singapore for the first time with an R&D operation. These MNCs tend to find they need to design products for the Asian market from the start, rather than modify existing products sold in the West. With these developments, issues of IPR, such as quality of patent search and filing, enforcement, and trade secret, started to emerge. They also started to have collaborations with the local universities and research institutes. The results from these investments on research are a lot of intangible assets. Therefore, there is now a greater need for a sound IP system and related IP services for this new wave of foreign investment. Many of the companies interviewed mentioned their IP departments are still at the development stage, where they still rely on the IP department in their HQ. Nonetheless, some of them are now able to conduct patent search and filing on their own, and believe in time that the IP department in Singapore will grow into a full-fledged department with a wide range of

capability to serve the needs of their R&D activities and their investments in neighbouring countries.

It is worth mentioning that, whilst many of the companies we interviewed went through the sales-manufacturing-R&D cycle, some of the companies in our study came to Singapore in the 1980s with the intention of setting up a regional base there. They did not set up manufacturing facilities in Singapore, but used it as their regional administration base for their operations in neighbouring countries. To them, IP protection mechanisms were limited to brand protection, trade secrets protection, and pirated goods seizure. IP-related problems do not occur in Singapore but in its neighbouring countries.

To sum up, the change in the nature of FDI to Singapore has meant IPR is now a major consideration for many companies operating in Singapore. Some of these concerns relate to the R&D conducted in Singapore, whilst others relate to IP issues in the region as these companies also oversee the regional operations.

4. Summary

In summary, the results of our study suggest that the IPR system in Singapore is well developed with much progress made in the past several years. However, Singapore's relatively small market size makes it less interesting for foreign companies to register their patents, trademarks, etc. there. But given the growing emphasis on R&D in its economic activities, boosted by active local research institutes as well as FDI of an R&D nature, the IPR system is very likely to become an integral system of Singapore's economy in the near future.

CHAPTER 9

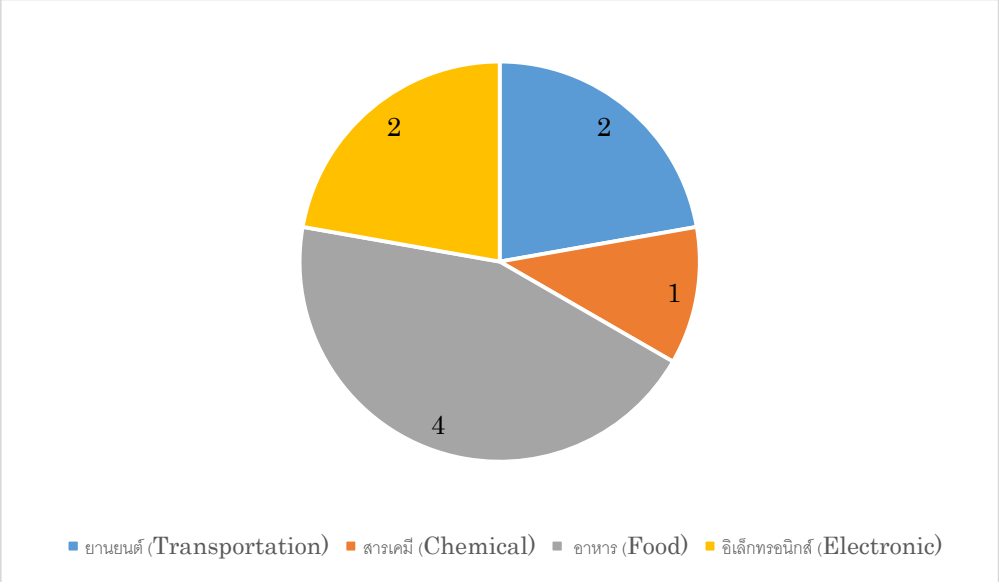
US and EU Companies in Thailand

1. Profile of Sample Companies

The study surveys the opinions of foreign subsidiaries, from the United States (US) and Europe, in four different industries (food, chemical, transportation, and electronics), on intellectual property (IP) policy and investment in Thailand.

Of the nine companies surveyed for this study, four were US companies (American company or Thai company with American shareholders) and five were European Union (EU) companies (European company or Thai company with European shareholders).

Figure 9.1: Surveyed Companies Classified by Industry



2. Determinants for Establishing a New Subsidiary in Thailand: General Issues

Most of the companies surveyed will consider the following factors or conditions before making any investment in Thailand (see Table 9.1).

Table 9.1: General Matters Considered for Investment

General Matters	Before Establishment	After Establishment
	US/EU	US/EU
1. Size and growth rate of GDP	4/4	1/2
2. Size and growth rate of the relevant market	4/3	2/1
3. Price level	3/4	0/2
4. Stability of exchange rate with Japanese yen	2/0	1/0
5. Wage level (labour cost)	4/4	1/3
6. Quality of human capital	4/2	1/1
7. Ease of establishing sales channels	3/3	0/1
8. Ease of procuring raw materials, components, etc.	3/4	1/3
9. Receptiveness to foreign products of local customers	4/2	1/1
10. Number of existing competitors in the relevant market	3/4	2/2
11. Level of legal development concerning intellectual property rights	4/4	2/2
12. Level of implementation and enforcement of intellectual property law	4/4	2/1
13. Country risk (political, religious stability, disaster, etc.)	3/3	2/1
14. Completeness and reliability of infrastructure	2/3	1/1
15. Size and growth of the relevant market in neighbouring countries	3/3	2/1
16. Number of prior establishments of local subsidiaries from home country and/or other advanced countries	1/2	0/0
17. Trade barrier or trade friction	4/2	1/2
18. Requirement for operation permit (regarding procurement of raw materials, investment ratio, etc.)	3/1	2/0
19. Distance from home country	1/0	0/0
20. Distance from neighbouring country with large market	2/2	1/0
21. Corporate tax rate	4/4	2/1
22. Existence of preferential treatment system (favourable taxation system, etc.)	3/3	2/1
23. Regulation on currency repatriation and exchange	2/1	1/0
24. Other	0/0	0/0

As can be seen in the figure, most US or EU companies surveyed will consider the following basic factors before making an investment or expanding business in Thailand:

growth and size of GDP, growth and size of related markets, price range, wages, human resources quality, difficulties of setting up distribution channels, difficulties in supplying materials or ingredients, acceptance level of international products, number of competitors, improvement level of IP law, level of application and enforcement of IP law, other risk factors in the country, growth and size of related market in neighbouring countries, trade barriers, tax rates, and other privileges.

US companies seem to focus more on the quality of human resources, the acceptance of international products, and trade barriers, whereas EU companies focus on price range, supply of materials and components, and competitors in the related market.

The companies engaged in the chemical, transportation, and electronics industries relied more heavily on government policy to promote and support their business. For example, the government stipulates that a company proposing to merchandise any products to the government must establish the factory in the country. In this case, the company must follow the rule to keep the business on track.

Companies in the food industry revealed that since they are involved in 'consumer products', the most important factors considered in investment decisions are market size, logistic system, and location of their factory, which should be in the vicinity of the target market area. One company in the food industry informed us that its greatest concern is the permission to establish a factory. One company operating in the transportation industry, which mainly exports its vehicles abroad, revealed that it attaches great importance to the logistics system and choosing business partners in the markets where it exports its products.

3. Perception of IP System

All the companies surveyed were aware of the IP system before and after making an investment in Thailand. However, interviewees from US companies said they were not aware of 'design patent' and 'utility model patent' as those are unrelated to their business, whereas most of the EU companies interviewed showed they were aware of all IP issues including patent, trademark, product design, petty patent, and know-how.

We measured the degree of awareness each company has regarding IP issues on a scale from 1 to 5 (1 represents no awareness, 5 high awareness). One US electronics company showed highest awareness (5) and a US transportation company scored 2.

Other US companies have different levels of awareness; a company in the food industry

has the awareness in patent issues in scale 1, in trademark issues in scale 3, and has the most awareness in scale 5 in know-how technology protection issue as well as in trade secret issue.

As for EU companies, one company in the chemical industry is equally aware in the average scale of 3. The other company in the food industry has a scale of 2.

Moreover, EU companies have different levels of awareness in each IP issue. For example, a company in the transportation industry rates their awareness on patent issue, trademark, know-how, and trade secret in scale 4. Its awareness on product design and petty patent is 3 whilst for copyright issues, it is only 2.

Other EU company in the food industry pays more attention to trademark, know-how, and trade secret protection (average scale of 3) whilst it has the least awareness (scale 1) on other IP issues.

Another EU company in the food industry puts most importance on trademark issue (scale 4) whilst on other IP issues, it is on scale 3.

The survey results show that nearly all companies will take IP issues into account before making any investment. However, the levels of awareness varied depending on the kind of IP issue is related to their particular business.

For example, a company in the food industry that produces raw materials for another company shares awareness on the issues of trademark, know-how, and trade secret, whereas another company in the food industry that retails its products focuses only on trademark issues. However, a computer programme company in the electronic industry pays attention to all IP issues.

Another interesting finding from our in-depth interviews is that the companies engaged in chemical and transportation will pay more attention to the IP issue of a target country if they need to establish a research centre, as having a research centre may result in the leakage of know-how, research findings, and important company information. However, IP issues were not the only main factor in investment decisions (see Table 9.2).

Table 9.2: General Intellectual Property Issues Before and After Investment

	Before Establishment US/EU	After Establishment US/EU
1. Scope of patent rights (patentability)	3/5	1/2
2. Development of legal system on patent rights enforcement	3/5	1/2
3. Operation of legal system on patent rights enforcement	3/5	1/3
4. Scope of trademark rights	3/5	1/2
5. Development of legal system on trademark enforcement	3/5	1/4
6. Operation of legal system on trademark rights enforcement	3/5	3/4
7. Scope of design patent rights	2/5	1/2
8. Development of legal system on design patent rights enforcement	2/5	1/2
9. Operation of legal system on design patent rights enforcement	2/5	1/2
10. Scope of utility model patent rights	2/5	1/2
11. Development of legal system on utility model patent rights enforcement	2/5	1/2
12. Operation of legal system on utility model patent rights enforcement	2/5	1/2
13. Scope of copyrights	2/5	1/2
14. Development of legal system on copyrights enforcement	2/5	1/2
15. Operation of legal system on copyrights enforcement	2/5	2/2
16. Technology know-how protection system and the level of protection	3/5	1/2
17. Trade secret protection system and the level of protection (not including technology know-how)	3/5	2/2

3.1. Trademark issues

Most of the subsidiaries taking part in the survey responded that they would certainly study the trademark issue before making an investment in Thailand. One US company, long established in Thailand, did not respond to the survey due to a lack of information of the company's history. However, the interviewee revealed that the company has to look at the trademark issue in neighbouring countries before an investment. This implies that the company studied the trademark issue before making an investment in Thailand (see Table 9.3).

Table 9.3: Trademark Issues

	Before Establishment US/EU	**Facing after Establishment US/EU**
Type of trademark	3/3	1/na
Trademark prosecution timeline	4/4	2/2
The relate costs for obtaining trademark (including patent attorney fees and translation costs)	3/3	1/na
Trademark maintenance fee	3/1	1/na
Rescission of trademark registration based on non-use	3/1	1/na
Trademark invalidation proceedings	3/1	1/na
Co-ownership of trademark rights	3/2	1/na
Trademark assignment system	3/1	1/na
Trademark licensing	3/3	1/na
Trademark term	3/1	1/na
Trademark injunctions	4/3	3/na
Trademark damages	4/3	3/4
Membership of trademark law treaties	3/1	1/na

The trademark law of Thailand follows the international standard. However, the interviewees revealed that they experienced delays due to the complicated process of trademark registration. The Department of Intellectual Property of Thailand has recently made the system more efficient to increase convenience and shorten the trademark

registration process.

Trademark infringement is the issue most frequently mentioned by the companies interviewed. One company in the food industry revealed that its trademark was infringed by another person. However, the issue did not appear to be severe because the other person was unaware of the infringement; after the company sent him a warning, the infringement stopped.

Apart from trademark infringement, the company also discovered that its trademark was printed as a logo on a t-shirt offered for sale. But the company did not consider it as another infringement issue, and thus did not file a petition, because the logo promoted the company's brand.

Another company in the electronics industry claimed to have received a report from a police officer saying that a product with the company's trademark was found amongst other products suspected to be infringement products. The company's inspection team found this to be indeed the case. The products had been produced in a neighbouring country and exported to Thailand to be offered for sale. In this case, the number of trademark infringement products was small and did not cause any damage to the company. The offender was prosecuted for another trademark infringement and the company interviewed did not pursue the case.

Another company in the food industry revealed that they engage in materials procurement for clients and do not have their own company trademark, but that they were planning to register their own trademark in the near future.

A company operating in the electronics industry told us their company had never experienced a trademark infringement issue since their products are not 'consumer products' and are sold only to government sectors. As they have only very few competitors, trademark infringement has never been an issue of interest.

Another company in the food industry reported that there is a higher chance of trademark infringement with 'consumer products' than with any other type of products. For the company which merchandises transport products, such as machine and vehicle, the case of trademark infringement is not found.

Another company involved in the transportation industry also responded that their trademark has never been infringed because their products relate to a specific type of vehicles.

Conclusion: Consumer products tend to have a higher chance of being infringed than other types of products.

3.1.1. Copyright issues

The survey revealed that only two out of four US companies studied copyright details and that only one out of five EU companies were concerned about copyright.

Interviews with individual companies revealed that the reason each company did not claim on the copyright factors is that those had no effect on the business of the company. Companies that had actually studied copyright were confronted with fewer copyright issues after they had invested in Thailand (see Table 9.4).

Table 9.4: Specific Copyright Issues

	Before establishment US/EU	**After establishment US/EU**
Creation by employee	2/1	1/na
Scope of neighbouring rights protection	2/na	1/na
Copyright registration	2/na	1/na
Co-ownership of copyright	2/na	1/na
Copyright assignment system	2/na	1/na
Copyright licensing	2/na	1/na
Copyright term	2/na	1/na
Copyright injunctions	2/na	1/na
Copyright damages	2/na	½
Level of criminal punishment for copyright infringement	2/na	1/1
Membership of international copyright law treaties	2/na	1/na

A company engaged in the electronics industry offers its computer programme system only to big corporations, such as banks, or to the government sector; thus, there is a lower chance of copyright infringement.

Nonetheless, the company had occasionally been faced with copyright infringement of their computer programme, such as when clients had installed their software on more computers than had been agreed on. Whilst this is considered a copyright infringement, the company decided not to prosecute the violators but instead negotiated with them to purchase more copies of the copyrighted computer programme. This compromise thus prevented a complex and costly legal dispute. To avoid any copyright infringement cases, negotiation and compromise had always been the company's preferred solution.

Conclusion

- The surveys revealed that most companies studied copyright issues before making an investment, whereas a few companies were not concerned about copyright issues as these had nothing to do with their business.
- Only one of the companies surveyed had been confronted with a copyright infringement issue, but negotiated a compromise solution rather than prosecuting the violator.

3.1.2. Patent issues

Three out of four US companies and three out of five EU companies reveal the information specifically on patent factors. One US company and one EU company claim they found a problem after their investment in Thailand (see Table 9.5).

One company from the chemical industry reported it had been faced with a pharmaceutical patent issue (the pharmaceutical industry is not considered in this study) because of the complexity of the patent application process and the lack of a specialised officer.

An EU company active in the food industry informed us that it also sells pharmaceutical products. As for the pharmaceutical patents, most of the original inventors conduct patent application process by themselves. However, some original inventors authorised the company to conduct the application process. In the latter case, the company learned that the application process takes a long time.

An EU company in the transportation industry revealed that it had also been confronted with the complicated process of patent application. It decided to apply for a petty patent instead since the process takes much less time. This company had never experienced a patent infringement as its product is highly specialised and has few competitors in the industry.

In-depth interviews of the companies did not mention patent issues; for most of them, patent applications were carried out at the company headquarters. The company headquarters decides if the patent should be applied in Thailand, but mostly decide against it. In any cases related to intellectual property, US and EU companies usually put their legal representative in Thailand in charge of the process, rather than their associate company in Thailand.

Table 9.5: Patent Issues

	Before establishment US/EU	**After establishment US/EU**
Patent prosecution timeline	2/2	na/1
Related cost of obtaining patent (including patent attorney fees and translation costs)	na/na	
Patent maintenance fee	1/1	na/na
Home country application system	2/1	1/na
Employer's duty regarding employee inventions	2/na	1/na
Correction of patents	1/na	na/na
Patent invalidation proceedings	1/1	na/na
Exercise of compulsory licensing rights	1/na	na/1
Co-ownership of patent rights	2/1	1/na
Patent assignment system	1/na	na/na
Patent licensing system	1/1	na/na
Patent term	2/3	1/1
Patent injunctions	2/2	1/na
Patent damages	3/2	1/1
Membership of international patent law treaties	2/na	1/na
Secret patent system (patent application indicating national security)	1/na	na/na

Conclusion

- Most of the companies surveyed considered patent issues before making an investment. Only a few companies were confronted with delays in the patent application process.

3.1.3. Design patent issues

According to the survey, two out of four US companies would consider design patent issues. None of the EU companies would give information about this. Most of the US companies claimed they had not experienced any problems after their investment, except for a company engaged in the electronics and transportation industry (see Table 9.6).

Table 9.6: Design Patent Issues

	Before establishment US/EU	**After establishment US/EU**
Design patent prosecution timeline	1/na	na/na
Costs related to obtaining design patents (including patent attorney fees and translation costs)	1/na	na/na
Design patent maintenance fee	2/na	1/na
Design patent protection for a part of products	2/na	1/na
Co-ownership of design patent	1/na	na/na
Design patent assignment system	1/na	na/na
Design patent licensing	2/na	1/na
Design patent term	2/na	1/na
Design patent injunctions	2/na	1/na
Design patent damages	2/na	1/na
Membership of design patent international law treaties	2/na	1/na

The companies that did not mention design patent factors were divided into two groups. The first group said that the design patent does not entirely relate to their company's business. The second group said that the company headquarters is responsible for the patent application for the company in their country and decide not to apply for the patent in Thailand.

Conclusion

- US companies rarely considered design patent factors before making an investment. EU companies did not mention design patent issues at all.

3.1.4. Petty patent issues

Only one US company interviewed had experience with a petty patent issue; none of the European companies mentioned anything about petty patents. None of the companies surveyed had been faced with any petty patent problems after their investment (see Table 9.7).

The in-depth interviews revealed that one EU company engaged in the transportation industry experienced a delay in the patent application process. To avoid the complicated lengthy procedure, the company chose to apply for a petty patent instead.

Conclusion

- The companies interviewed attach little importance to petty patents, except for one EU company.

Table 9.7: Utility Model Patent Issues

	Before establishment US/EU	**After establishment US/EU**
Utility model patent prosecution timeline	1/na	na/na
Relate costs of obtaining utility model patents (including patent attorney fees and translation costs)	1/na	na/na
Utility model patent maintenance fee	1/na	na/na
Co-ownership of utility model patent	1/na	na/na
Utility model patent assignment system	1/na	na/na
Utility model patent licensing	1/na	na/na
Utility model patent term	1/na	na/na
Utility model patent injunctions	1/na	na/na
Utility model patent damages	1/na	na/na
Utility model technical opinion	1/na	na/na

3.1.5. Other Intellectual Property issues

One US company surveyed mentioned that it considered other IP-related issues after making the investment. Only one EU company considered other factors, such as the objection of licence contracts or controls to licence contracts.

Three out of four US companies said they took into account the issues of objection to licence contracts, controls of licence contracts, and grant-back clause before making an investment (see Table 9.8).

A US company operating in the food industry revealed that it was concerned with licence contracts as its manufacturing process uses a special technique because the licensing contracts stipulated the conditions that the licensee shall keep only the transfer technique confidentially. One EU food company had a similar opinion. Both companies have their employees sign confidential contracts to prevent them from leaking information to the public. One US company even has a code of ethics that mentions employees must not infringe any IP.

Using confidential contracts with their own employees to prevent leaking of company information is common practice even after investment in Thailand. These kinds of contracts are used in many companies, especially EU companies in the transportation industry, as they import the production technology from overseas, and it is key that their employees keep the information to themselves. As the result, EU companies have never been faced with a leak of information from their employees.

Conclusion

- US companies paid more attention to IP issues than EU companies.
- US companies were interested in licence contracts, technology know-how protection systems, and trade secret protection systems.
- The licence contract contains conditions stipulating that the licensee needs to keep the technology transfer confidential. Most companies surveyed had their employees sign the confidentiality contract.

Table 9.8: Other IP-Related Issues

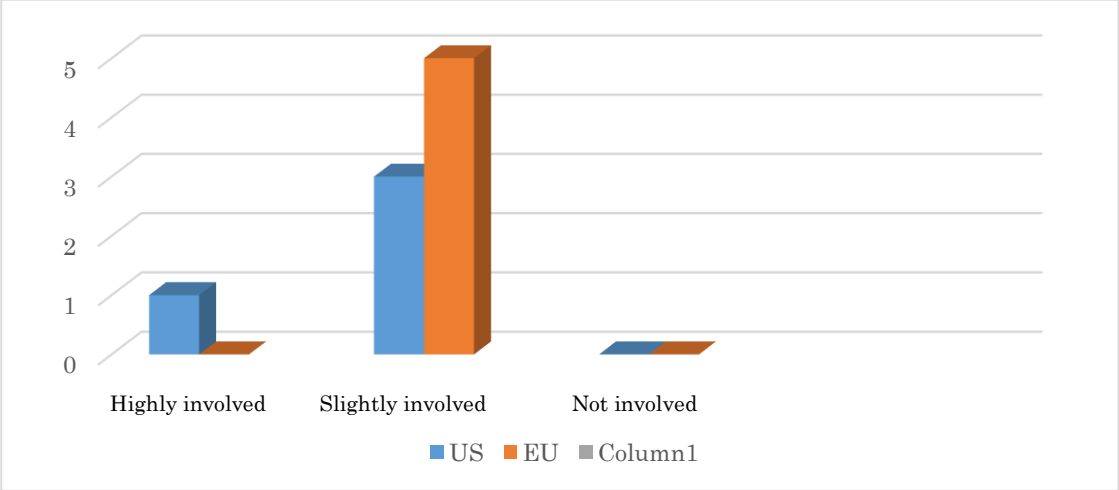
	Before establishment US/EU	**After establishment US/EU**
The invalidity of grant-back clauses (assignment-back or non-exclusive grant-back, reciprocity grant-back)	2/na	1/na
The invalidity of NAP clauses (non-assertion of patent clause)	2/na	1/na
A transparent and predictable tax system on transfer pricing	2/1	1/1
Licensor's warranty obligation	2/na	1/na
Rates control for licence fee	2/na	1/na
Export control on technology transfer	2/na	1/na
State of headhunting and an employee's duty to refrain from competition	2/na	1/na
Objects of licence contracts	3/1	1/1
Control of license contracts	3/1	1/1
Contractor registration system	1/na	1/na
Establishment and enforcement of a system similar to Bayh-Dole	1/na	1/na
Import and export control for counterfeiting goods (Injunctions)	2/na	1/na
Technology know-how protection system and the level of protection	3/na	1/na
Trade secret protection system and the level of protection (not include technology know-how)	3/na	1/na

4. Involvement of IP Division in n Establishing Foreign Subsidiaries

The survey shows how much each company considered IP factors before making an investment. Only one company said its IP division was highly involved, eight companies reported it was slightly involved, and none of them said it was not involved (see Figure 9.2).

The US company that reported high involvement of its IP division operates in the electronics industry and its business is directly related to the computer programming field. The company had occasionally experienced IP infringements, but decided to find a compromise solution rather than prosecute the violators.

Figure 9.2: Level of IP Division's Involvement in Deciding to Expand



Other companies reported that, even though IP issues have little bearing on their business, they would consider such issues before investment. Moreover, companies would weigh the importance of other factors, such as the privilege from the board of investments.

5. Summary

This study shows that IP issues are not the main factors that companies considered before investing in Thailand. According to the survey, the companies interviewed accorded equal importance to other factors, such as market size, consumer preferences, and public utility systems.

6. Reference

As a member of the World Trade Organization (WTO), Thailand protects the following IP:

1. Copyright
2. Patent/petty patent
3. Trademark
4. Trade secret
5. Geographical indication
6. Layout designs of integrated circuit
7. Plant variety protection

These Acts are under the supervision of the Department of Intellectual Property, Ministry of Commerce. However, the Plant Variety Protection Act is controlled and executed by the Department of Agriculture, Ministry of Agriculture and Cooperatives.

Another specific law related to IP protection in Thailand is the Optical Disc Production Act B.E.2548 (2005), which is also controlled by the Ministry of Commerce.

6.1. Recent revision of Intellectual Property Law

Some important IP Acts are currently under revision:

1. The Trademark Act - to punish those who purchase goods with a counterfeit trademark and proprietors who allowed such items to be offered for sale in their property. The Act is also being revised to protect ‘sound’ and ‘scent’ as trademarks.
2. The Copyright Act - to punish those who purchase goods with a copyright infringement and proprietors who allowed such items to be offered for sale in their property.

6.2. Use of intellectual property system

Thailand adopted the IP concept from Western countries. Book printing was the first legal protection of IP and this act became the foundation of the present Copyright Act. Although copyright does not require registration in Thailand, a ‘Copyrights Notification System’ was created by law, which, according to statistics of the Department of Intellectual Property, has been rarely used (see Table 9.10).

Table 9.9: Statistics of Copyrights Notification Classified by Type of Work

Year	Total	Literary	Dance	Artistic	Musical	Audiovisual	Cinematographic	Sound Recording	Broadcasting	Others
2013	16,317	3,494	8	4,267	7,637	693	49	145	0	24
2012	17,199	3,323	14	4,811	8,447	376	31	159	0	38
2011	16,848	4,317	14	4,625	6,688	484	29	401	1	290
2010	21,836	4,283	23	6,776	9,427	639	61	216	0	411
2009	20,988	3,621	26	4,968	10,653	790	31	290	2	60,722
2008	22,721	2,214	43	5,430	13,471	600	24	296	0	743
2007	24,357	1,617	18	4,823	15,511	1,172	76	282	0	858
2006	39,511	1,892	4	3,899	28,347	1,709	16	2,329	0	1,315
2005	22,019	1,598	3	2,607	15,325	575	50	1,757	2	102
2004	20,418	1,128	5	2,280	15,395	698	195	595	0	122
2003	16,240	1,074	3	2,321	12,230	361	0	153	0	98
2002	12,714	837	2	2,777	8,315	329	0	164	64	226
2001	9,709	599	17	2,412	6,354	156	0	171	0	0
2000	9,233	752	1	2,758	5,503	113	0	106	0	0
1999	3,000	524	13	416	1,833	115	1	89	2	7
1998	1,134	2	206	299	113	2	33	6	24	449
1997	711	1	165	214	45	0	75	10	6	195
1996	562	1	104	232	47	1	12	2	7	156
1995	974	0	221	480	56	3	0	0	30	184
1994	1,350	12	144	1,003	105	0	0	3	10	73
1993	2,044	0	585	330	1,019	0	0	2	0	108
1992	4	0	1	0	0	0	0	0	0	3
Total	246,373	31,189	1,620	57,728	166,521	8,816	683	7,176	148	6,009

Source: Department of Intellectual Property, Ministry of Commerce.

Trademark is very important issue for the business sector. Trademark law in Thailand has been much improved and has become more practical. According to the Statistics of Trademark Applications, the total number of trademark applications by Thai entrepreneurs is three times as high as non-Thai applications. Statistics show an increasing trend in foreign applications due to growing business expansion in Thailand (see Table 9.11).

Table 9.10: Statistics of Trademark Applications Classified by Country

Year	Thailand	US	EU	Japan	ASEAN*	Others	Total
2013	27,881	3,103	3,003	3,782	1,131	7,197	46,097
2012	27,508	3,838	4,986	3,395	1,060	5,076	44,963
2011	23,457	2,992	4,406	2,749	960	4,386	38,950
2010	24,781	2,590	4,431	2,217	842	2,795	37,656
2009	24,734	2,307	4,234	1,938	674	2,200	36,087
2008	21,950	2,673	5,519	2,126	697	2,457	35,422
2007	20,140	3,221	5,388	1,667	744	2,395	33,555
2006	21,171	3,365	3,500	1,598	721	3,217	33,572
2005	24,275	2,846	3,758	1,880	846	2,818	36,423
2004	26,414	2,417	2,957	1,465	716	2,999	36,968
2003	23,335	2,608	2,953	1,374	636	2,143	33,049
2002	21,518	2,241	3,639	1,305	599	807	30,109
2001	16,712	2,297	3,151	1,476	504	1,979	26,119
2000	15,495	2,972	3,993	1,505	799	2,291	27,055
1999	13,601	2,808	3,055	911	392	1,672	22,439
1998	10,034	2,418	3,107	834	299	1,727	18,419
1997	9,526	3,102	4,087	1,369	437	1,388	19,909
1996	10,012	2,667	2,640	1,453	389	1,915	19,076
1995	9,711	2,362	2,451	896	363	1,676	17,459
1994	8,962	2,057	2,185	931	428	1,306	15,869
1993	9,190	1,938	1,903	847	290	1,295	15,463
1992	7,212	2,136	1,761	826	230	1,213	13,378
1991	7,190	1,566	1,741	679	236	926	12,338
1990	7,024	1,659	2,107	860	195	1,018	12,863
1989	7,565	1,454	1,758	905	139	892	12,713
1988	7,543	1,390	1,759	766	124	923	12,505
1987	6,557	1,185	1,395	658	89	726	10,610
1986	5,546	1,222	1,445	428	81	548	9,270
1985	4,910	798	1,131	441	42	556	7,878
1984	4,587	848	1,473	666	63	617	8,254
1983	4,609	1,002	1,055	667	86	577	7,996
Total	453,150	70,082	90,071	42,614	14,812	61,735	732,464

Source: Ministry of Commerce.

Table 9.11: Statistics of Patent Application by Country

	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Total Patent	11,209	10,227	7,695	5,602	9,755	10,578	10,339	9,821	10,885	8,942	8,574	7,726	7,994
Thailand	3,456	3,360	3,406	3,570	4,233	3,686	3,478	3,564	4,258	3,428	3,426	3,030	2,504
US	1.315	1,096	630	303	1,132	1,374	1,623	1,473	1,625	1,429	1,359	1,266	1,567
Japan	3,386	3,028	1,996	904	2,057	2,461	2,269	2,019	2,150	1,762	1,631	1,533	1,711
EU	1,555	1,264	853	458	1,397	1,807	2,411	2,107	1,789	1,419	1,401	1,116	1,241
ASEAN	151	103	62	65	110	98	38	46	117	122	59	69	77
Others	1,346	1,376	748	302	826	1,152	520	612	946	782	698	712	894
1 Design	3,802	3,481	3,789	3,614	3,873	3,820	3,521	3,560	4,545	3,569	3,631	3,237	2,662
Thailand	2,527	2,292	2,531	2,648	3,171	2,735	2,533	2,524	3,367	2,609	2,624	2,415	1,970
US	133	135	128	124	106	110	141	173	159	164	264	198	140
Japan	448	444	595	399	283	507	408	447	468	379	304	278	214
EU	385	240	324	318	204	318	329	295	341	199	267	172	160
ASEAN	60	49	25	20	32	41	13	18	27	29	11	22	24
Others	249	321	204	105	77	109	97	103	183	189	161	152	154
2 Invention	7,407	6,746	3,906	1,988	5,882	6,758	6,818	6,216	6,340	5,373	4,943	4,489	5,332
Thailand	929	1,068	893	922	1,062	951	945	1,040	891	819	802	615	534
US	1,182	961	502	179	1,026	1,264	1,482	1,300	1,466	1,265	1,095	1,068	1,427
Japan	2,938	2,584	1,401	505	1,774	1,954	1,861	1,572	1,682	1,383	1,327	1,255	1,497
EU	1,170	1,024	529	140	1,193	1,489	2,082	1,812	1,448	1,220	1,134	944	1,081
ASEAN	91	54	37	45	78	57	25	28	90	93	48	47	53
Others	1,097	1,055	544	197	749	1,043	423	509	763	593	537	560	740
2.1 Chemistry	3,302	3,179	1,740	661	3,236	3,684	3,876	3,486	3,009	2,798	2,610	2,476	3,237
Thailand	336	374	329	312	388	314	349	378	203	216	223	193	162
US	688	624	295	103	686	879	1,028	878	828	734	731	730	1,007
Japan	1,033	936	530	105	784	810	848	680	618	567	488	533	687
EU	698	673	302	51	909	1,061	1,480	1,309	976	890	843	789	943
ASEAN	29	19	16	17	12	16	11	15	18	25	15	14	19
Others	518	553	268	73	457	604	160	226	366	366	310	217	419
2.2 Engineering	1,850	1,818	1,101	701	1,250	1,660	1,618	1,556	2,567	1,806	1,294	1,189	1,281
Thailand	252	329	279	281	326	339	341	394	483	363	354	274	230
US	161	135	71	39	120	185	220	218	494	360	176	171	230
Japan	1,005	951	524	281	524	711	618	556	850	631	502	480	512
EU	183	157	91	33	126	190	296	246	354	230	118	78	105
ASEAN	25	17	11	9	27	19	7	10	64	46	20	17	21

Others	224	229	125	58	127	216	136	132	322	176	124	169	183
2.3 Physics	2,255	1,749	1,065	626	1,396	1,414	1,324	1,219	764	769	1,039	824	814
Thailand	341	365	285	329	348	298	255	268	205	240	225	148	142
US	333	202	136	37	220	200	234	204	144	171	188	167	190
Japan	900	697	347	119	466	433	395	336	214	185	337	242	298
EU	289	194	136	56	158	238	306	257	118	100	173	77	33
ASEAN	37	18	10	19	39	22	7	3	8	22	13	16	13
Others	355	273	151	66	165	223	127	151	75	51	103	174	138

Source: Department of Intellectual Property, Ministry of Commerce.

Thailand has had a Patent Law since B.E. 2522 (1979), but not many Thais make use of it. Realising the importance of innovation for the country's economy, the Thai government has put in place policies aimed at enhancing and supporting creative innovation with the result that patent applications from Thai entrepreneurs appear to have been growing in numbers. Nonetheless, the numbers of Thai patent applications are small compared to those from foreign entrepreneurs, especially from the US, Europe, and Japan (see Table 9.12).

Table 9.12: Trade Secret Notifications

Unit: Number

Year	Grand Total	Industrial			Commercial		
		Total	Bangkok	Provincial	Total	Bangkok	Provincial
2012	273	273	58	215	0	0	0
2011	247	247	45	202	0	0	0
2010	254	251	47	204	3	3	0
2009	110	96	51	45	14	3	11
2008	236	222	110	112	14	6	8
2007	483	380	66	314	103	30	73
2006	508	458	91	367	50	11	39
2005	1,801	1,590	287	1,303	211	10	201
Total	3,912	3,517	755	2,762	395	63	332

Source: Department of Intellectual Property, Ministry of Commerce.

The Trade Secret Act established a notification system for the owners of trade secrets. However, the system seems unattractive as only a small number of notifications have been made. Moreover, the registration of geographical indication has been found to be rare in Thailand as well. This may be due to vague definitions and a complicated registration process. However, according to the statistics, registration of geographical indication will

tend to increase. Government policies on the project One Tumbol One Product (OTOP), amongst the others, are the key factor for such tendency (see Table 9.13).

Table 9.13: Application and Registration of Geographic Indication

Unit: Number

Year	Application			Registration		
	Total	Thai	Foreigner	Total	Thai	Foreigner
2013	10	10	0	15	13	2
2012	8	7	1	0	0	0
2011	12	11	1	3	3	0
2010	10	10	0	0	0	0
2009	7	5	2	9	7	2
2008	13	10	3	1	1	-
2007	14	12	2	8	6	2
2006	12	9	3	8	7	1
2005	15	14	1	3	2	1
Total	101	88	13	47	39	8

Source: Department of Intellectual Property, Ministry of Commerce.

CHAPTER 10

US and EU Companies in Indonesia

1. The Respondents: Company Profiles

In Indonesia, 12 subsidiaries of US and European companies were willing to participate in the survey. Of those, seven were local subsidiaries of electronics companies, two were local subsidiaries of automotive companies, two were local subsidiaries of chemical companies, and one was a local subsidiary of a food company.

Amongst the seven local subsidiaries of electronics companies, three could be regarded as one unit, as two were local partners of the main local subsidiary company and were established before and after establishment of the main subsidiary.

Confidentiality was an important consideration for the US and European companies when deciding whether they would like to participate in this survey. Hence, all company details and the identities of participants in the survey as formal or informal representatives of the companies were treated as confidential information.

The US and European companies that participated in the survey were established in the following years: 1890, 1934, 1936, 1970, 1974, 1975, 1995, 1996, 1981, 1990, and 2013 for two local partners of a local subsidiary company.

They operated in the following business sectors: telecommunication networks, information technology, electronic appliances for kitchen and utensils, automotive devices, freight and logistic transportation, pharmaceutical, and food industries.

The companies surveyed were involved in a mix of production, sales, and R&D activities.

The methods of establishment of the companies surveyed varied: most companies were established through joint ventures, followed by capital investment from the parent companies, and self-established.

The investment ratio from the parent companies of the local subsidiaries of the US and European companies surveyed ranged from about 60 percent, 70 percent, 75 percent, and 95 percent, in accordance with the national laws of Indonesia that prohibit foreign investment

of 100 percent. Respondents that were self-established had not received capital investments from their parent companies, but other types of investments. Not all respondents clearly declared this percentage.

Most companies did not declare their sales and profit rates due to their companies' confidentiality policies.

There was no secrecy about employee numbers. In most companies the number of local employees was much higher than the number of foreign employees, which is why foreign investment has always been very welcome in Indonesia.

The US and European companies surveyed had established local subsidiaries in ASEAN countries other than Indonesia. Hence, they were more concerned about strengthening their position in the country where they had established their local subsidiary companies than expanding their business into other countries, particularly in the ASEAN region.

Of the 12 companies surveyed, only 1 electronics company and 1 pharmaceutical company had plans to expand their subsidiaries in other ASEAN countries. Viet Nam, Malaysia, and Myanmar were the three countries mentioned by respondents as the new emerging countries with promising market potential.

2. Determinants for Establishing a New Subsidiary in ASEAN Countries

According to the companies surveyed, the most important factors in determining establishment of new subsidiaries in ASEAN countries were as follows:

2.1. Economic growth and gross national product

Economic growth and gross national product (GNP) were the first factors considered by foreign investors when deciding whether to open new subsidiaries in any country, including those in ASEAN. Negative economic growth and low GNP meant loss is likely to occur in the future. These two factors were addressed in the interviews of several companies surveyed.

2.2. Population

The bigger the population of a country, the more likely that country would be a destination of direct investment. Population is an indicator of the size of potential market.

This is why Indonesia, being the most populated country in ASEAN, has attracted much foreign investment.

2.3. Growth of the consuming class

A large population in itself is not sufficient reason to invest in a country. If most people are poor and upward mobility is limited, actual and potential customers may be limited. This issue was particularly important for companies surveyed with products that fulfil secondary needs, such as electronics or automotive companies. Those companies producing goods that fulfil basic needs, such as food and medicines, were not very much concerned about this. As most respondents were electronics and automotive companies, the growth prospects of the consuming classes, i.e. middle-class and higher classes, were an important factor.

2.4. Increase of buying power

Related to the growth potential of the consuming classes, the potential increase of the population's buying power was also considered a determining factor. Buying power was also relevant to the companies in the food and pharmaceutical industries as it relates not only to financial power but also to access of facilities provided by government to obtain food and medicine. In this regard, compulsory licence in IP system was considered to be closely related to this factor.

2.5. Rise of middle and high classes

The presence of a growing middle and higher class of potential customers was particularly important to companies that produce and sell electronic and automotive devices. This was particularly important to the company surveyed that produces and sells high technology kitchenware and utensils. In developing countries, this type of business depends on high-class consumers.

2.6. Construction and special infrastructure

Construction as a determining factor for setting up a subsidiary in a country was mentioned by companies engaged with information technology networks. Construction meant the readiness of local infrastructure to build sophisticated installations for high quality wireless information technology networks.

2.7. Industrial sector

Economic development of several ASEAN countries is still based on traditional agriculture, rather than industrial, sector. Foreign companies, especially US and European companies, were attracted and could only invest in industry. Hence, the growing strength of the industrial sector was considered an important factor for all respondents that were typical industrial companies.

2.8. Laws, regulations, and policies related to investment

Laws, regulations, and policies related to medium-term and long-term investment were considered determining factors, as a clear legal system is a prerequisite for any investment. Ratification of the Agreement on the Establishment of the World Trade Organization, including the TRIPS Agreement, was considered the best way for a country to win the trust of potential foreign investors.

2.9. Legal certainty

US companies emphasised the importance of Labour Law, Industrial Law, Business Law, and, last but not least, IPR Law, to be implemented with legal certainty. Legal certainty facilitates foreign investments to grow rapidly.

2.10. Quality of human resources

Good education and high morale of the workforce in the country of destination were considered important factors for foreign investment. The importance of the quality of human resources was not limited to the private sector, but even more relevant in the public sector.

3. Problems Faced after Establishment of Subsidiaries

Companies surveyed listed the problems and challenges they had faced when establishing new local subsidiaries in ASEAN countries, Indonesia in particular.

3.1. The time it takes to register intellectual property rights

Complaints were expressed about the long time it takes to obtain trademark and patent certificates. Even though it was acknowledged that greatly reducing the time would be impossible, there are differences in the effectiveness and efficiency of the registration system between countries. ASEAN developing countries have more complicated and lengthy procedures, with differences from one to three years.

3.2. Poor law enforcement

Poor law enforcement made respondent companies face great difficulties to play in the market. In a number of developing countries in ASEAN, including Indonesia, the introduction of new laws and regulations is often not followed up with strong implementation and effective law enforcement.

3.3. Labour law complications

A good labour law is supposed to give workers civil and political rights to assemble, express their thoughts freely in any form, fight against unjust conduct by companies, and conduct peaceful strikes. However, these rights at times are used unwisely by workers, and an effective tripartite dispute resolution mechanism between workers, companies, and the government is usually lacking. Companies tend to suffer most when workers go on strike.

3.4. Legal uncertainty

There are big discrepancies between written laws and what has been happening in the marketplace. Indonesia has ratified many important international legal instruments in IPR and enacted a complete set of laws and regulations covering all matters of IP in the form of the TRIPS Agreement. Yet in some public areas and even supermarkets and malls, 70 percent or more of goods offered for sale are fake products, and are sold freely and openly, as if these are legal.

Complaints by companies are not always acted upon.

3.5. Differing intellectual property standards

IP standards varied between countries, including between ASEAN countries. For example, in Indonesia, public promotion of goods and services in the form of TV advertisements or advertising in other mass media is prohibited, whereas it is allowed in the US and Japan. Consequently, product awareness amongst consumers is considerably lower than in the US and Japan.

3.6. Lack of critical consumers

A lack of critical consumers, especially towards pharmaceutical companies that produce and sell medicine, have opened greater possibilities for counterfeit medicines to enter the market. This is not only harmful to the companies concerned but also very dangerous.

3.7. Technical handicaps

Technical handicaps included lack of integrated administrative procedures to obtain permission, lack of blueprints and sustainable investment policies, employment policies, and uncertain and obscure investment policies.

3.8. Challenges in Indonesia

In Indonesia, the challenges are complicated bureaucracy; slow decision-making; problems with IP enforcement, both in civil and criminal procedures; low awareness of IP law of stakeholders, consumers, and the general public; and time-consuming IP registration system. The companies surveyed said they do not mind paying higher fees but they do mind waiting.

4. Strategies for Tackling Problems and Challenges

Companies surveyed explained they had tried to tackle the problems and challenges faced when expanding their business into ASEAN countries by

- conducting market analyses, preparing mitigating actions before investment, and taking into account the provided IP protection system, especially regarding copyrights;
- seeing the problems as opportunities provided by the market accessible for foreign investment;
- taking advantage of the expansion on the demands and the market size of the targeted

country;

- in case of weak IP enforcement systems in the country of destination, avoiding taking disputes to court in favour of settling disputes through negotiation, mediation, and arbitration processes (non-judicial processes);
- conducting a strategy of continuous product renewal to try and stay ahead of competitors and counterfeiters;
- problems of being accused of marking up the price of service were solved by the strategies: paying penalties, complying with the domestic rules of the country of origin as well as the country of destination, maintaining the trust of the costumers, conducting advocacy;
- involving the Indonesian government in the safeguarding of patents in cases of direct investment in a company that did not invent but produced goods, such as medicines, above all for safety reasons;
- not investing if objective conditions in a certain ASEAN country were not conducive;
- faced with severe IP infringements, maintaining a small but devoted group of customers able to pay higher prices compared with products sold in other countries and compared with fake products, which can be successful particularly in a country with a large population;
- deploying marketing strategies to defeat competitors that use illegal methods, rather than resorting to legal action against IP infringement, in case law enforcement in the country concerned is weak.

4.1. Factors considered concerning intellectual property rights and intellectual property systems when deciding on subsidiary establishment

All respondent companies in Indonesia explained that factors considered concerning IPR and IP systems in deciding on establishing subsidiaries were much more varied and complicated than the factors after establishment of a subsidiary.

The factors considered concerning IPR and IP systems are shown in Figure 10.1.

Figure 10.1: IPR- and IP System–Related Factors Considered in Deciding on Subsidiary Establishment

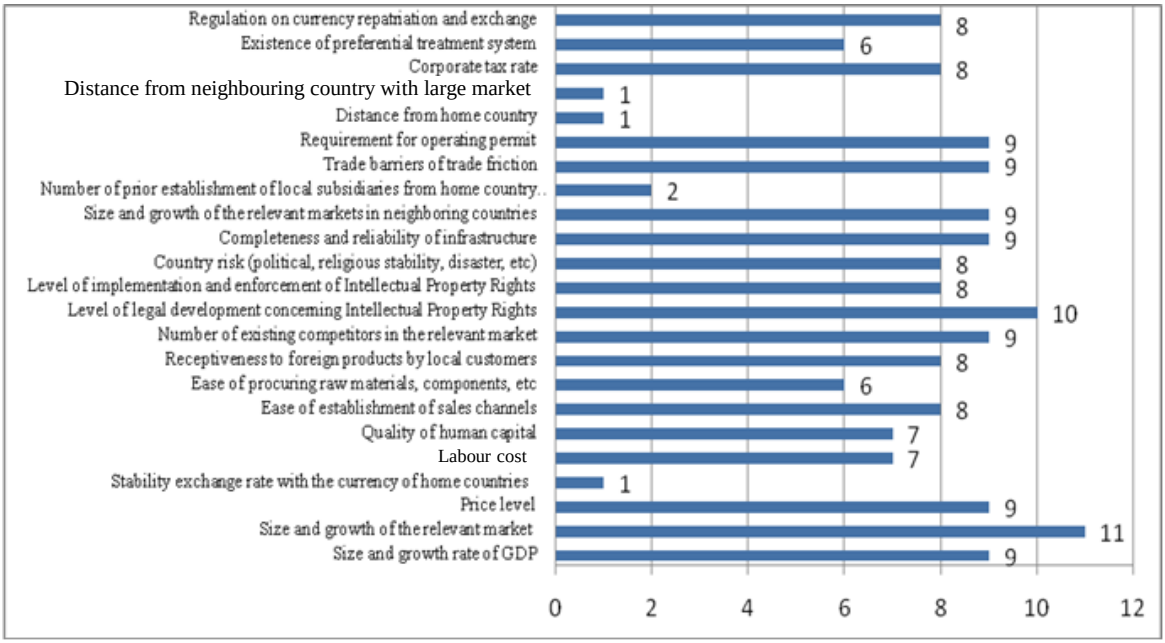


Figure 10.1 shows that out of 23 factors considered, ‘size and growth of the relevant market’ was the most important. All companies interviewed except one chose this factor. The second most important factor, chosen by 10 out of 12 respondents, was ‘the level of legal development concerning intellectual property rights’.

The three factors least considered were ‘stability exchange rate with the currency of home countries’, ‘distance from home country’, and ‘distance from neighbouring country with large market’. Each of these factors was picked by only one respondent company.

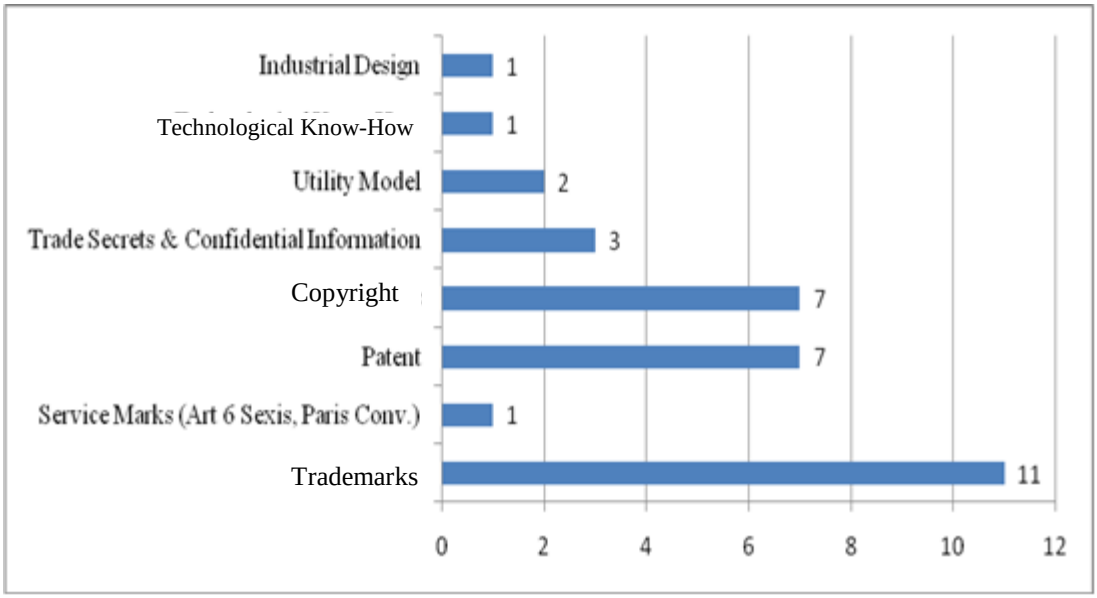
Problems concerning IPR differed amongst respondent companies, as each company surveyed considered a different IP subject matter to be the most important.

Figure 10.2 depicts the most important IP subject matters in the IP system, all considered of differing importance by the 12 respondents from US and European companies in Indonesia.

It should be noted that in Indonesia the IPR system does not provide special protection for utility models and technological know-how, which is quite different from the IPR protection system in Japan. Utility models and technological know-how products in Indonesia are commonly protected under the patent system, especially under the sub-system of simple patents. Although possible, it is uncommon for utility models and technological know-how to be protected under industrial design because the industrial design protection system of Indonesia is much closer to the copyrights protection system— especially

concerning mass production—than to the patent protection system, which is more concerned with technology

Figure 10.2: The Most Important Intellectual Property Subject Matters

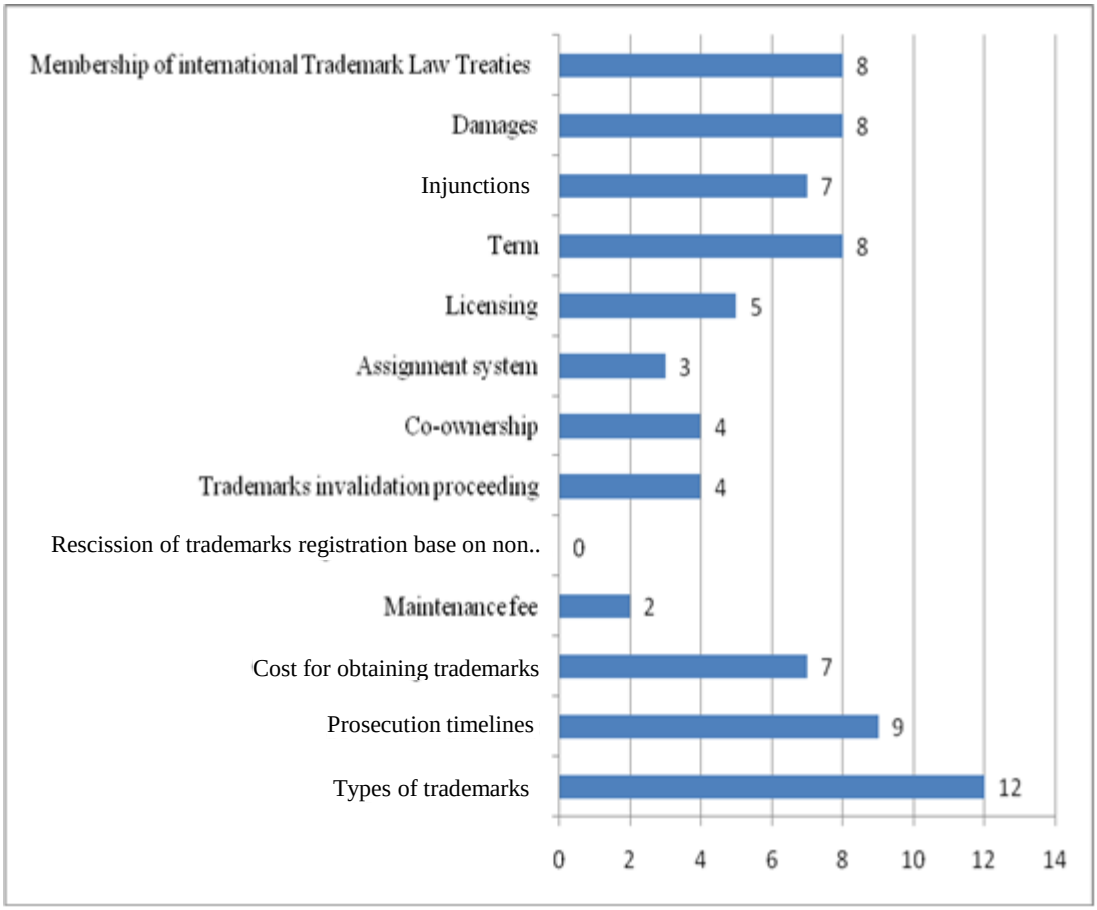


Thus, in the context of Indonesia's IPR system, the choice of several respondent companies who expressed that utility models and technological know-how were important could be resembled by those who chose the patent system. In this regard, a patent system that included the protection of utility models and technological know-how would be the second most important IP subject matter following trademarks and copyrights, respectively.

The determining factors in establishing new subsidiaries in ASEAN can be explained on the basis of the three IPR subject matters of greatest importance to most respondents—trademark, patent, and copyright.

Regarding trademarks, the determining aspects in establishing new subsidiaries in ASEAN countries were of varying importance to the companies surveyed. Overall they attached greatest importance to 'types of trademarks' and 'prosecution timelines'. Figure 10.3 shows the importance to the respondents of all determining aspects of the trademark system.

Figure 10.3: Determining Aspects of the Trademark System for Establishing Subsidiaries in ASEAN Countries



The determining aspects of the patent system for establishing new subsidiaries in ASEAN countries were also of varying importance to the companies surveyed, with 'prosecution timelines' and 'home-country application system' ranked highest by five respondents, followed by seven other determinants picked by four respondents each—'secret patent system', 'membership of international patent law treaties', 'term of protection', 'patent licensing', 'exercise on compulsory licensing rights of patent', 'maintenance fees', and 'cost of obtaining patent protection'—as can be seen in Figure 10.4.

Regarding the determining aspects of the copyright system for establishing new subsidiaries in ASEAN countries, respondents accorded the highest importance to 'licensing of copyrights', followed by 'term of protection of copyrights' and 'damages' (see Figure 10.5).

Figure 10.4: Determining Aspects of the Patent System in Establishing Subsidiaries in ASEAN Countries

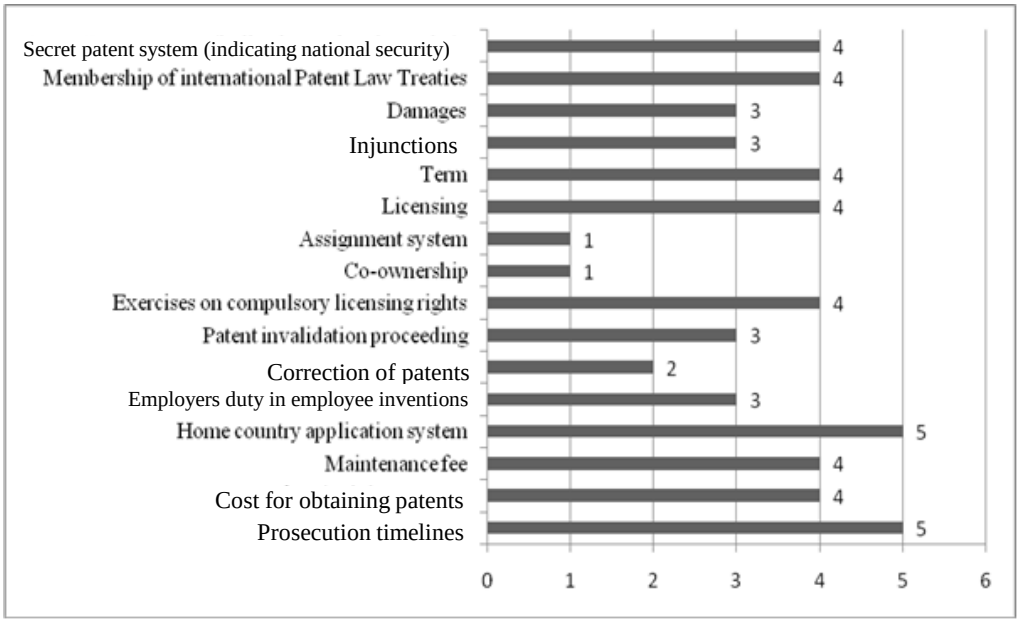
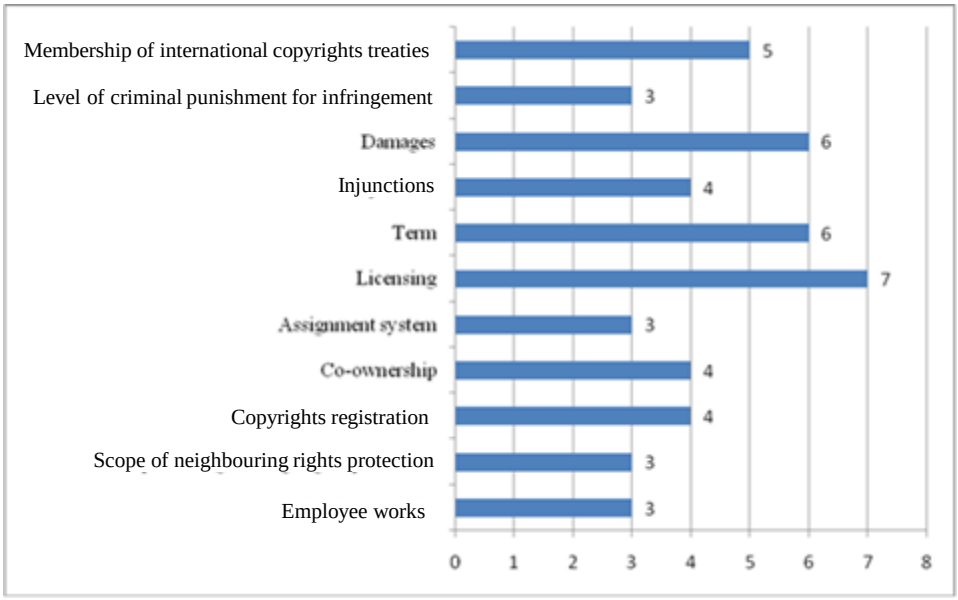


Figure 10.5: Determining Aspects of the Copyright System in Establishing Subsidiaries in ASEAN Countries



One aspect each of the trademark, patent, and copyright systems were considered highly important by all companies interviewed. In the case of trademarks, it was 'membership of international trademark law treaty'; for patents, 'the secret patent system indicating national security'; and for copyrights, it was 'the level of criminal punishment for copyrights infringement'.

4.2. Problems concerning IPR and IP systems faced after subsidiary establishment

The majority of companies surveyed considered problems concerning IPR and IP systems after establishment of a subsidiary to be less important than before establishment.

Three companies surveyed mentioned three different aspects—'price level', 'stability exchange rate of currency in the home countries', and 'corporate tax rate'—that became problem issues after subsidiaries were established.

Only three companies picked more than one factor concerning IPR and IP system that had to be considered after subsidiaries were established.

Combining the above results, 'corporate tax rate' was perceived to be the most important factor that became a problem after subsidiary companies were established.

Figure 10.6: Determining Aspects After Establishment of Subsidiaries in ASEAN Countries

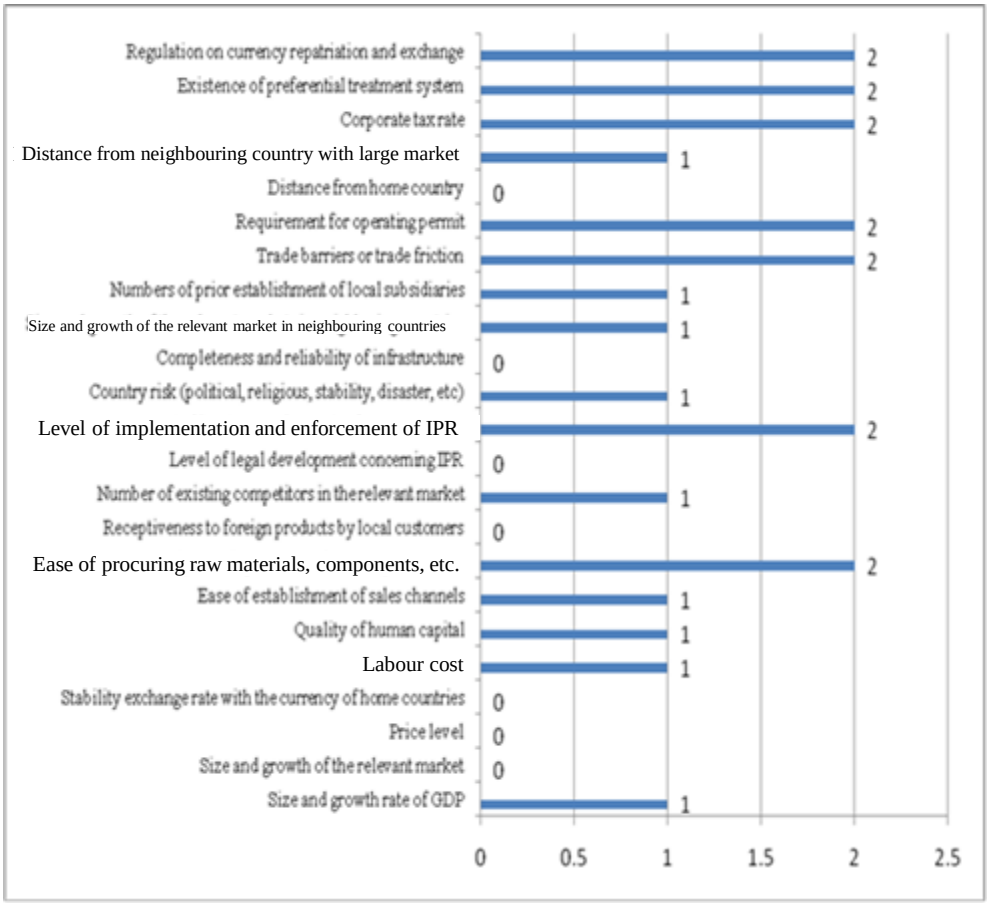


Figure 10.6 shows the factors of greatest importance for the three companies interviewed: 'ease of procuring raw materials, components, etc.', 'level of implementation

and enforcement of intellectual property rights', 'trade barriers or trade friction', 'requirement for operating permit', 'corporate tax rate', 'existence of preferential treatment system', and 'regulation on currency repatriation and exchange'. All these factors were mentioned twice.

Combining the above results, 'corporate tax rate' was perceived to be the most important factor that became a problem after subsidiary companies were established.

4.3. The context: Intellectual Property Rights Law in Indonesia[4]

In Indonesia, IPR protection has existed since Indonesia, or the Netherlands Indie (the colonial name of Indonesia), was still a colony of The Netherlands. The first Intellectual Property Rights Law registration was made in relation to trademarks protection in 1894 by *Hulpbureau Voor den Industrieelen Eigendom*[5] based on *Reglement Industrieele Eigendom Kolonien,* 1912. Article 2 of *Staatsblad of the Netherlands Indie,* 1924 Number 576[6] widened the scope of the Intellectual Property Rights Law to include industrial property rights[7].

Indonesia's independence was proclaimed on 17 August 1945 and the 1945 Constitution was enacted the following day. The 1945 Constitution contained indications that its contents should be worked out in further detail to be more complete. To avoid gaps in the law, Article 2 of the 1945 Constitution's Transitional Provision stipulated that all laws from the colonial

[4] Miranda Risang Ayu (2008), *Geographical Indications Protection in Indonesia based on Cultural Rights Approach*, PhD Thesis, Faculty of Law, University of Technology Sydney, 193–198.

[5] This institution was a colonial government institution under the Netherlands Indie's Department of Justice specialising in trademarks registration. After the Indonesian Proclamation of Independence and the announcement of the 1945 Constitution, *The Hulpbureua Voor den Industrieelen Eigendom* was nationalised as an Indonesian government institution named the Office of Crafts Property. It was changed into the Industrial Property's Office authorised in trademarks registration and other benefits (*octrooi*) protection, then into the Directorate General of Copyrights, Patent and Trademarks to Directorate General of Intellectual Property Rights (DGIP) under the Ministry of Justice in 1988, and finally into the Directorate General's Secretariat, Directorate of Copyrights, Design of Integrated Circuit Lay-outs and Design of Industrial Products, Directorate of Patent, Directorate of Trademarks and Trade Secret, and Directorate of Cooperation and IPR Information Development in 1999 (see Directorate General of Intellectual Property Rights, Department of Justice and Human Rights September 2005).

[6] *'Staatsblad'* is a Dutch legal term used in Indonesia's colonial era to refer to a law in the Netherlands Indie (now Indonesian archipelago). '*Het Staatsblad'* literally means the Law Gazette. In the existing Indonesian legal system, *'Het Staatsblad'* is translated as the Government Gazette or '*Lembaran Negara'*, see Fockema Andrea (1996), *Juridisch Woordenboek;* see also *Mijnwoordenboek* <http://mijnwoordenboek.nl> at 17 December 2007.

[7] Directorate General of Intellectual Property Rights, Department of Justice and Human Rights of the Republic of Indonesia, *About Us*, above n 474,1.

era should continue to be valid until the enactment of its substitution. Hence, many laws of the Netherlands Indie, *Reglement Industrieele Eigendom Kolonien* 1912[8], continued to be valid and effective after the creation of the Republic of Indonesia. It took 16 years for this law to be replaced by the Republic of Indonesian Law Number 21, 1961 regarding company marks and trademarks. This law aims to prevent the public from being misled[9].

The current Constitution of Indonesia, which serves as the fundamental law of the country's legal system, is the 1945 Constitution of the Republic of Indonesia with I, II, III, and IV Amendments. The constitutional articles laying down the basis for the IPR system are Articles 18 (1) and (2), 28 I (3), 32, and 33 (3) and (4).

As Indonesia is a civil law country, most Indonesian laws are unified and codified in written form. In interpreting the law, judges are more concerned in finding its hidden meaning. Lower regulations are then strictly construed from the denotative meaning of existing laws. Furthermore, it is unnecessary for judges in the same jurisdiction to follow the previous judges' reasoning in legal interpretations. Judges are not bound by jurisprudence, but by existing laws only. Thus, at the implementation level, Indonesia predominantly relies on lower level regulations, such as government regulations, presidential decrees, and regional and local regulations, rather than on landmark cases.

In 2000, there were two considerations to amend the Indonesian national laws and regulations concerning IPR. The first consideration was that the amendment was necessary because of a strong increase in domestic and international trade, which necessitated an increase in national economic capacity and investments. The second consideration was the need to meet the minimum standard requirements of the TRIPS Agreement that had been ratified by the enactment of the Republic of Indonesian Law Number 7, 1994 regarding the Ratification of Agreement Establishing the World Trade Organization[10].

Although not as wide as in common law countries, Indonesia recognises 'a tort' in the contents of the Civil Code of The Republic of Indonesia. Article 1365 of Indonesian Civil Code states that 'every action that is against the law and causes damage to another person

[8] *Reglement Industrieele Eigendom Kolonien* (1912)) can be translated as the Colonial Industrial Property Act, 1912.

[9] Rachmadi Usman (2003), *Hukum Hak atas Kekayaan Intelektual, Perlindungan dan Dimensi Hukumnya di Indonesia* (*Intellectual Property Rights, the Protection and Their Legal Dimensions in Indonesia*), 305-308.

[10] *Law Number 14, 1997 of the Republic of Indonesia regarding the Ratification of Agreement Establishing the World Trade Organization*, Consideration a, b, c.

obliges the person who wrongly act therein, because of his or her wrongdoing (tort), to pay compensation.'[11]

This legal concept of general 'tort'' is used to establish a system of fair competition in business practices in Indonesia that is required under the TRIPS Agreement. Furthermore, it works in harmony with the Indonesian Law to regulate unfair competition, i.e. the Republic of Indonesian Anti-Monopoly and Unfair Competition Law Number 5, 1999 (The Law of Anti-Monopoly). This law is based on Article 1365 of the Indonesian Civil Code.

Regarding Article 1(6) of the Indonesian Anti-Monopoly Law, unfair competition is considered to be competition between producers and/or traders in their production and/or marketing of goods or service activities that are conducted deceptively or unlawfully or hamper competition[12]. In this context, Article 19 (b) bans a competitor from restraining consumers or customers to conduct economic relations with its competitor[13]. This ban implies a prohibition of misrepresentation and misappropriation. Interestingly, in Article 19 (a), this prohibition is expanded upon to include any act to deny and/or to block a certain producer to conduct the same production activity in the same market[14].

Indonesia also established a system to protect subject matters of IPR that were specified in the TRIPS Agreement and other international legal instruments related to conventional IPR. The Republic of Indonesia's laws regarding this matter are: (1) Law Number 8 Year 1999 concerning consumer protection; (2) Law Number 19 Year 2002 concerning copyrights; (3) Law Number 14 Year 2001 concerning patent; (4) Law Number 15 Year 2001 concerning trademarks, including Service Marks and Geographical Indications; (5) Law Number 29 Year 2000 concerning the rights of the new variety of plants; (6) Law Number 30 Year 2000 concerning trade secrets; (7) Law Number 31 Year 2000 concerning

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[11] *Civil Code of the Republic of Indonesia,* art 1365 in the original text, '… *tiap perbuatan yang melanggar hukum dan membawa kerugian kepada orang lain, mewajibkan orang yang menimbulkan kerugian itu karena kesalahannya untuk menggantikan kerugian itu.'*

[12] Law Number 5, 1999 of the Republic of Indonesia concerning the Prohibition of Monopoly and Unfair Competition Practices, Art 1(6) in the original text, '… *persaingan usaha tidak sehat adalah persaingan antarpelaku usaha dalam menjalankan kegiatan produksi dan atau pemasaran barang dan atau jasa yang dilakukan dengan cara tidak jujur atau melawan hukum atau menghambat persaingan usaha.'*

[13] Ibid, '*... pelaku usaha dilarang melakukan satu atau beberapa kegiatan, baik sendiri maupun bersama pekau usaha lain, yang dapat mengakibatkan terjadinya praktek monopoli dan atau persaingan usaha tidak sehat berupa ... menghalangi konsumen atau pelanggan pelaku usaha pesaingnya untuk tidak melakukan hubungan usaha dengan pelaku usaha pesaingnya itu,….'; see* also Munir Fuady, above n 485.

[14] Ibid, '*... pelaku usaha dilarang ... menolak dan atau menghalangi pelaku usaha tertentu untuk melakukan kegiatan usaha yang sama pada pasar yang bersangkutan ...'*

industrial design; (8) Law Number 32 Year 2000 concerning integrated circuit layouts; and (9) Law Number 18 Year 2002 concerning a national system on research, development, and implementation of science and technology.

At the implementation level, Indonesia also enacted Government Regulation Number 51 Year 2007 concerning geographical indications and regulations on other technical matters, such as appeal processes and product classifications.

Apart from the TRIPS Agreement, which was ratified by Law Number 7 Year 1994 concerning the Establishment of the World Trade Organization/TRIPS Agreement, a number of important international legal instruments related to IPR were also ratified through national laws and regulations: (1) Presidential Decree Number 78 Year 2007 concerning the ratification of UNESCO Convention 2003 on the safeguarding of intangible cultural heritage of mankind; (2) Law Number 5 Year 1994 concerning the ratification of the United Nations Convention on Biological Diversity; (3) Presidential Decree Number 15 Year 1997 concerning the ratification of the Paris Convention on the protection of industrial property rights (Paris Convention); (4) Presidential Decree Number 16 Year 1997 concerning the ratification of the Patent Cooperation Treaty; (5) Presidential Decree Number 17 Year 1997 concerning the ratification of Trade Marks Law Treaty; (6) Presidential Decree Number 18 Year 1997 concerning the ratification of the Berne Convention on the Protection of Literary and Artistic Works; and (7) Presidential Decree Number 19 Year 1997 concerning WIPO Copyrights Treaty.

Based on the above layers of laws and regulations, the objectives of Indonesia's IPR system are the protection of the following:

- Literary works, artistic works, and other objects of copyright, including works protected by related rights or neighbouring rights;
- Patentable inventions, including technological inventions and simple patents;
- Trademarks, service marks, trade names, collective marks, and certification marks;
- New variety of plants;
- Industrial designs;
- Design of integrated circuit layouts;
- Trade secrets, confidential information;
- Geographical indications, indications of source.

Indonesia's IPR system also allows for the protection of extended IPR:

- IPR in cyber law;

- Folklore in copyrights and related rights;
- Community ownership in collective marks and certification marks;
- Local varieties in the protection of new plant varieties;
- New possible form of appellation of origins and geographical indications.

Moreover, Indonesia's legal system, which is still developing, also aims to protect new emerging IPR:

- Cultural and IP rights;
- Genetic resources, traditional knowledge, and traditional cultural expressions (folklore);
- IP, food security, and public health.

4.4. Conclusion

For the US and European companies that took part in our study, 'size and growth of relevant market' was the most important general IP-related factor in deciding to establish a new subsidiary in Indonesia, followed by 'level of legal development of intellectual property rights'. Regarding IPR, the most important issues were trademarks, followed by patents and copyrights, and trade secrets.

Factors concerning trademarks considered to be most important by respondents before establishing subsidiaries in Indonesia were 'types of trademarks' and 'trademarks prosecution time lines'. Regarding the patents system, 'patent prosecution time line' and 'home-country application system' were given the most consideration. As to the copyrights system, 'copyright licensing' was accorded the greatest importance, followed by 'term of protection' and 'damages'.

Qualitative data showed that, with regard to running their business in another country, especially Indonesia, respondents highly considered membership of trademarks international treaties, secret patent system, and criminal punishment to combat copyright infringements.

4.5. Recommendations

Despite the efforts of the Directorate General of Intellectual Property Rights of the Republic of Indonesia to make the administrative process of obtaining trademarks and patent certificates more efficient over the last five years, some respondents still referred to their

bad experiences with this process. So, speeding up these efficiency improvements—particularly on trademarks, patents, and industrial designs—is very important.

Law enforcement in Indonesia is a key sticking point. In the IP system, enforcement had taken place but is still inconsistent. In the context of IPR, greater consistency of law enforcement is highly recommended.

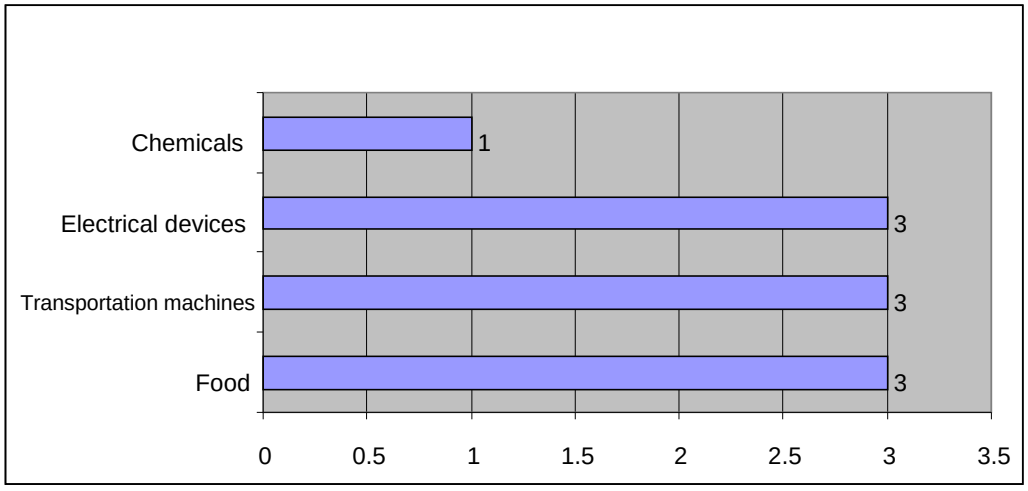
CHAPTER 11

US and EU Companies in Viet Nam

1. Profiles of the Companies

Ten US and European companies from industries such as chemicals, transportation devices, food and electrical devices doing business in Viet Nam participated in the study—three of them operated in the food industry, three in transportation machines sector, three of them in electrical devices, and one in chemicals (Figure 11.1).

Figure 11.1: Number of Companies by Sector



Most of the companies interviewed had been doing business in Viet Nam since the middle of the 1990s, starting right after the normalisation of the relationship between Viet Nam and the US. Some of them started operating in Viet Nam after 2000.

Most of the interviewed companies had sales activities in Viet Nam, some of them had production activities, and only one was engaged in R&D.

Of the 10 companies that participated in the study, 7 were self-established, 2 have 100 percent Vietnamese capital, and one is a joint venture.

The number of employees varied widely, ranging from 70 to 750. The majority of employees were Vietnamese and some of these companies have 100 percent local employees. All companies had adopted a localisation strategy of employees.

Overall, these companies did not have a major problem relating to IPR in Viet Nam. Most of these companies think that the IP system in Viet Nam has been improving and all of them consider IP to be important for their business.

As nearly all of these companies have sales activities in Viet Nam, they are more concerned with the trademark problem than other IP matters. Some companies also consider patent and trade secret to be important for their business in Viet Nam. As the transfer of technology from US and European companies becomes more frequent in the near future, these companies will focus more on patent and know-how. In fact, the R&D activities of these US and European companies are conducted mainly in Singapore, Indonesia, Malaysia, or Thailand.

Foreign direct investment (FDI) is very important for Viet Nam's development. Viet Nam is one of the countries in ASEAN that attracts most FDI, and Viet Nam's economy has been developing because of FDI. Viet Nam's business environment, including the IP system, is being continuously improved to attract more FDI.

2. Determinants of Establishing a New Subsidiary in ASEAN and Issues Faced after Establishment

2.1. Factors considered before establishment

The factors of greatest concern in deciding on establishing a subsidiary, similar to the survey results for the other countries that are part of this study, are 'size and growth rate of gross domestic product (GDP)', 'size and growth rate of relevant market', 'quality of human capital', 'level of legal development concerning intellectual property law', and 'level of implementation and enforcement of intellectual property law'. Size and development of the market, and quality of manpower and IP system were main considerations for establishing new subsidiaries in ASEAN for the companies surveyed. All of the companies interviewed considered these factors because they needed skilled people to work for them. Moreover, the growth rate of GDP and the size of the market also affect their business in the region. IP matters and IP enforcement are very important for investment and business expansion in this region. IP law is considered crucial to protect the market, production, and sales of these companies in the region and in Viet Nam.

Unlike other countries' overall survey results, these US and European companies doing business in Viet Nam did not consider the following factors: 'stability of exchange rate with

Japanese yen', 'completeness and reliability of infrastructure', 'trade barriers or trade friction', 'requirements for operating permit (regarding procurement of raw materials, investment ratio, etc.)', 'distance from home country', 'distance from neighbouring country with large market', and 'regulations on currency repatriation and exchange'. Viet Nam's legal system is less rigid towards business compared with that of other countries in the region, making the country's business climate more open and more likely to attract FDI. Not only Japanese companies doing business in Viet Nam but also many other Western countries, such as the US, the EU, and South Korea, are doing well in Viet Nam. They are not greatly concerned about the stability of the exchange rate with the Japanese yen and regulations on currency repatriation and exchange. Regarding trade barriers or trade friction, the companies interviewed did not face such problems in Viet Nam.

The following factors were accorded high importance before establishment: 'number of existing competitors in the relevant market' (90 percent of companies interviewed), 'wage level and ease of establishing sales channels' (80 percent), and 'price level and receptiveness to foreign products by local customers' (70 percent). In line with the overall survey results, 'the number of competitors relating to the market', 'the wage level relating to manpower', and 'the establishment of sales channels and price levels' were considered highly important. One factor considered by US and European companies surveyed is 'receptiveness to foreign products by local customers'.

The 10 US and European companies interviewed were less concerned about the following factors before establishment: 'country risk' (40 percent of interviewed companies considered), 'corporate tax rate' (30 percent), 'size and growth of the relevant market in neighbouring countries' and 'existence of preferential treatment system' (favourable taxation system, etc.) (10 percent), 'number of prior establishment of local subsidiaries from home country and/or other advanced countries' and 'corporate tax rate' (20 percent). It shows that political stability in Viet Nam has assured high levels of FDI are maintained. Trade preferential treatment and the tax system have improved, which attracts more FDI to Viet Nam.

However, several companies interviewed expressed concern about the lack of transparency in Viet Nam, even though this issue is not included in the questionnaire. It may not be a major concern for foreign companies in the region, but it seemed to be a major issue for some US and European companies doing business in Viet Nam.

2.2. Issues faced after establishment

Regarding the issues faced after establishment, the survey results are as follows: 50 percent of the companies interviewed were faced with the issue of the level of implementation and enforcement of IP law after establishment whilst only 10 percent faced the issue of transparency. It shows that the implementation and enforcement of IP law are still a big issue for foreign companies in Viet Nam even though the IP system has been improved in recent years. During the interviews, many representatives of US and European companies said that they had problems with IP enforcement, in particular, trademark infringement in Viet Nam. Viet Nam is still a developing country and violation of IPR is still difficult to avoid. However, as most of these companies have sales in Viet Nam, trademark infringement is their biggest issue whilst patent and know-how infringement is not a major concern at present. To most other US and European companies doing business in ASEAN countries, trademark infringement is a major concern.

Table 11.1 shows the general matters of concern to the companies surveyed before and after their investment in Viet Nam.

Table 11.1: General Matters Before and After Establishing Subsidiaries

General Matters	Before Establishment	After Establishment
	US/EU	US/EU
1. Size and growth rate of GDP	10/10	
2. Size and growth rate of the relevant market	10/10	
3. Price level	7/10	
4. Stability of exchange rate with Japanese Yen	0/10	
5. Wage level (labour cost)	9/10	
6. Quality of human capital	10/10	
7. Ease of establishing sales channels	8/10	
8. Ease of procuring raw materials, components, etc.	8/10	
9. Receptiveness to foreign products by local customers	7/10	
10. Number of existing competitors in the relevant market	9/10	
11. Level of legal development concerning intellectual property rights	10/10	
12. Level of implementation and enforcement of intellectual property law	10/10	5/10
13. Country risk (political, religious stability, disaster, etc.)	4/10	

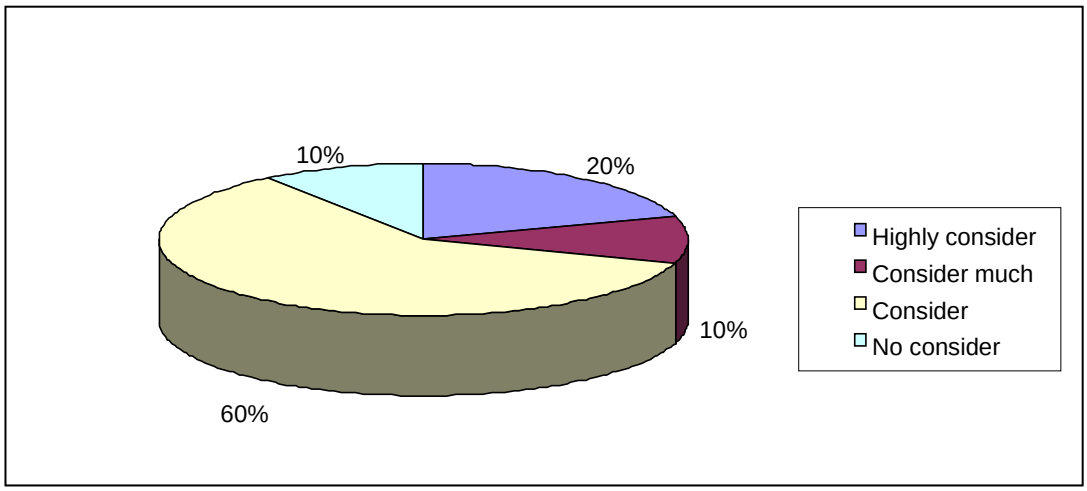
14. Completeness and reliability of infrastructure	0/10	
15. Size and growth of the relevant market in neighbouring countries	1/10	
16. Number of prior establishment of local subsidiaries from home country and/or other advanced countries	2/10	
17. Trade barriers or trade friction	0/10	
18. Requirement for operation permit (regarding procurement of raw materials, investment ratio, etc.)	0/10	
19. Distance from home country	0/10	
20. Distance from neighbouring country with large market	0/10	
21. Corporate tax rate	3/10	
22. Existence of preferential treatment system (favourable taxation system, etc.)	1/10	
23. Regulation on currency repatriation and exchange	0/10	
24. Others: Transparency	1/10	1/10

3. Factors on IPR and IP Systems Considered on Decision to Establish Subsidiary

3.1. IP system in general – Factors considered before establishment of subsidiaries

Regarding patent, the following factors are included: 'scope of patent rights (patentability)', 'development of legal system on patent rights enforcement', 'operation of legal system on patent rights enforcement'. Twenty percent of the companies interviewed considered patent highly important, 10 percent of the companies considered it important, 60 percent considered it, and 10 percent did not consider it at all. This result shows that although US and European companies doing business in Viet Nam are concerned about the patent issue, they do not have major concerns because they have mainly sales activities in Viet Nam at present. Many of the companies interviewed believed that the technologies they imported into Viet Nam to manufacture their products are unique and sophisticated and that Vietnamese companies cannot easily imitate or copy them. Hence, for most companies, except for some drug and chemical companies, filing of patents is not necessary.

Figure 11.2: Extent to which Patent Is Considered Before Establishing Subsidiaries



Regarding trademark, the following factors are included in the survey: 'scope of trademark rights', 'development of legal system governing trademark rights enforcement', and 'operation of legal system governing trademark rights enforcement'. The results of the trademark survey are as follows: 50 percent of the companies interviewed considered it highly important, 10 percent of the companies considered it important, and 40 percent considered it. These show that trademark is a big concern of these US and European companies doing business in Viet Nam. Indeed, all companies considered trademark matters before establishment of subsidiaries, and most of them were faced with trademark matters even after establishment. Similar to the other companies interviewed that are operating in the region, trademark is the biggest issue they are faced with.

Regarding design patent, the following factors are included in the survey: 'scope of patent rights (patentability)', 'development of legal system on patent rights enforcement', and 'operation of legal system on patent rights enforcement'. For design patent, 20 percent of the companies interviewed considered it highly important, 50 percent of the companies considered it important, 10 percent considered it, and 20 percent did not consider it at all. These results clearly show that design patent is not a big issue for US and European companies doing business in Viet Nam.

Figure 11.3: Extent to which Trademark Is Considered Before Establishing Subsidiaries

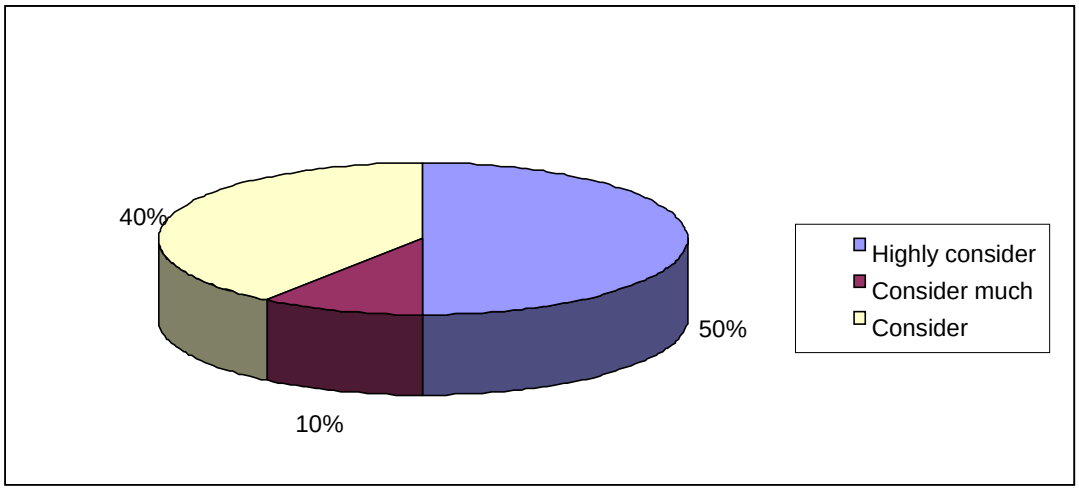
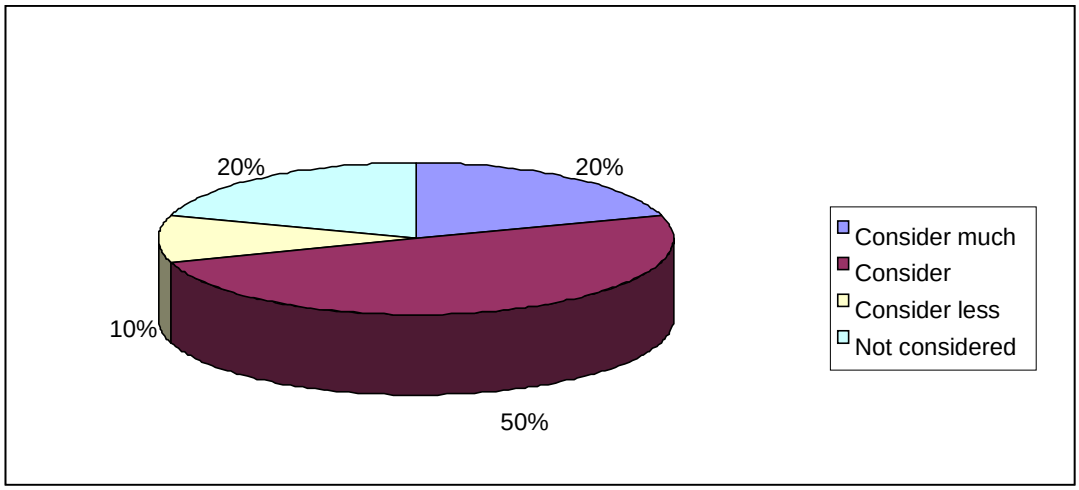


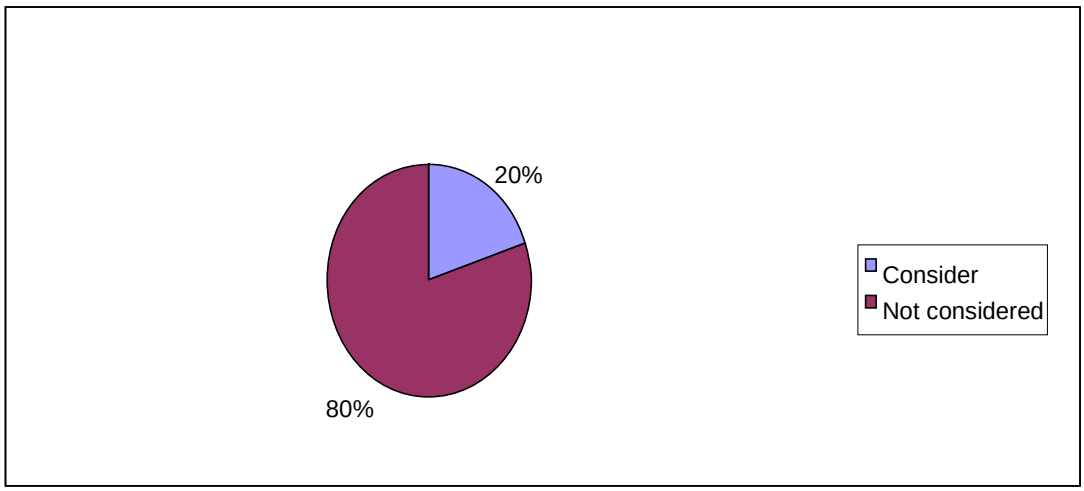
Figure 11.4: Extent to which Design Is Considered Before Establishing Subsidiaries



Regarding utility model patent, none of the companies interviewed considered it at all. This confirms that the patents used by these companies in Viet Nam are unique and complicated. They are not concerned about utility model patent or simple patent in Viet Nam.

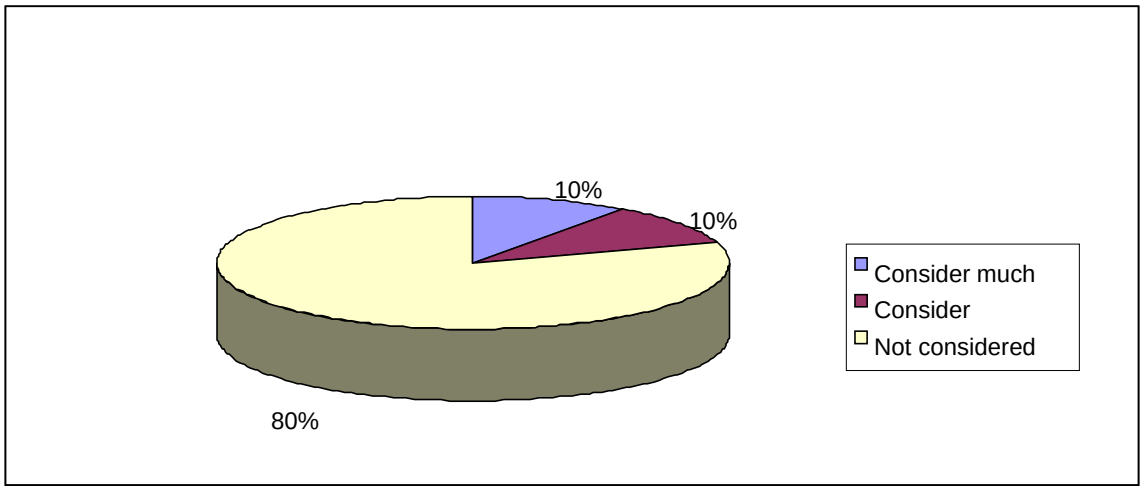
Regarding copyright, the following factors are included in the survey: ‘scope of copyright’, ‘development of legal system concerning copyright enforcement’, and ‘operation of legal system concerning copyright enforcement’. The survey on copyright factors revealed that 20 percent of the companies interviewed considered copyright, but 80 percent did not consider it at all. The representatives of the US and European companies we interviewed said that they have IP objects as software, but the software is used to support the operation of medical, electrical, and transportation machines. In fact, the software is open source so it does not require protection, which is why they are not concerned about copyright.

Figure 11.5: Extent to which Copyright Is Considered Before Establishing Subsidiaries



Regarding trade secret and know-how, the following factors are included in the survey: ‘technology know-how protection system and the level of protection’, trade secret protection system and the level of protection’ (not including technology know-how). As stated above, the results of trade secret and know-how survey are as follows: only 10 percent of the companies interviewed considered it highly important, 10 percent considered it important, but 80 percent did not consider it at all. US and European companies are not concerned about the protection of trade secret and know-how because their technologies are unique and difficult to imitate. Perhaps those companies concerned about trade secret and know-how think that they may need to protect their IP in Viet Nam in the near future.

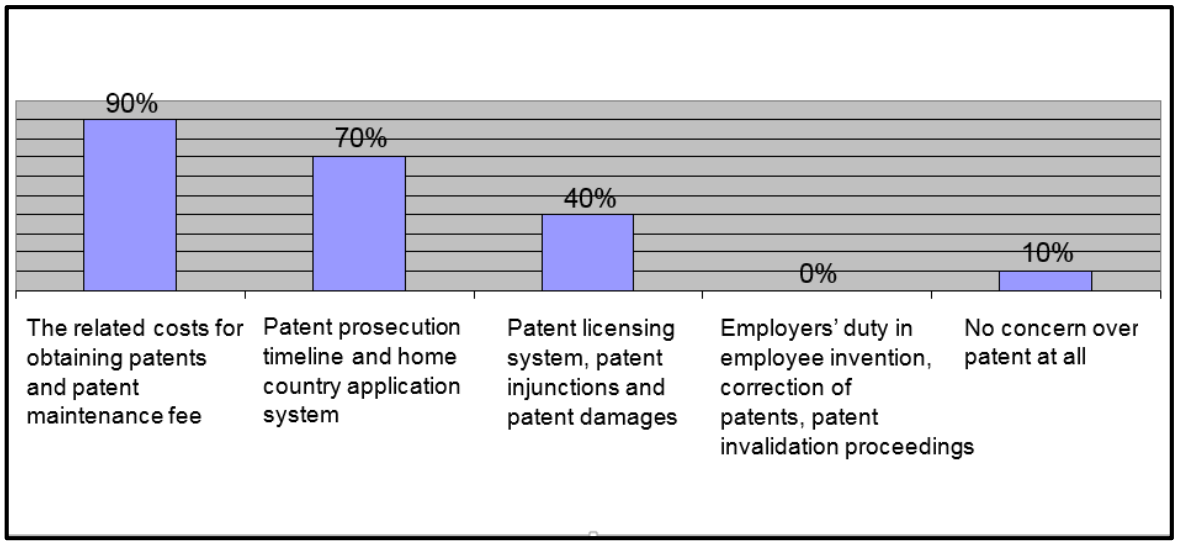
Figure 11.6: Extent to which Trade Secret and Know-how Are Considered Before Establishing Subsidiaries



3.2. Specific matters related to IPR: Factors considered before establishing subsidiaries

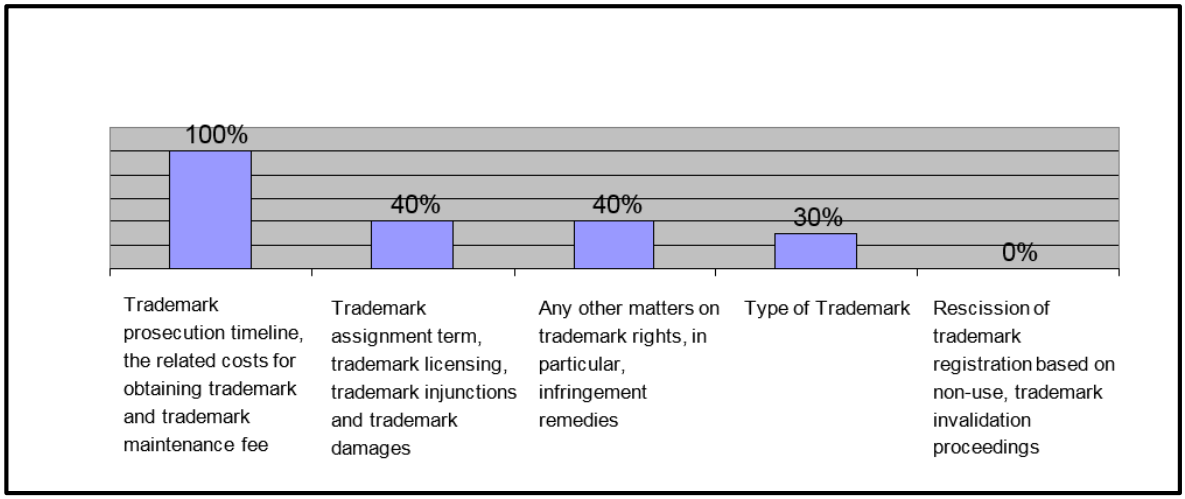
Regarding patent, similar to the survey results of other ASEAN countries, the biggest concern of the companies interviewed (90 percent of them considered these factors) are the costs, including those related to obtaining patents and the patent maintenance fee. Moreover, the quality of the patent system, such as the patent prosecution timeline and the home country application system, is also a factor of concern affecting FDI in the region (70 percent of the companies interviewed considered these factors). Amongst the companies interviewed, 40 percent of them considered the following factors whilst doing business in Viet Nam: patent licensing system, patent injunctions, and patent damages. And they were not concerned about the following factors: employers' duty in employee invention, correction of patents, patent invalidation proceedings, exercises on compulsory licensing rights, co-ownership of patent rights, patent assignment system, patent term, membership of international patent law treaties, and secret patent system. Only 10 percent of the companies interviewed did consider patent matters, which showed that they did not feel the need to protect their unique and complicated patents in Viet Nam.

Figure 11.7. Patent-Related Matters Considered Before Establishing Subsidiaries



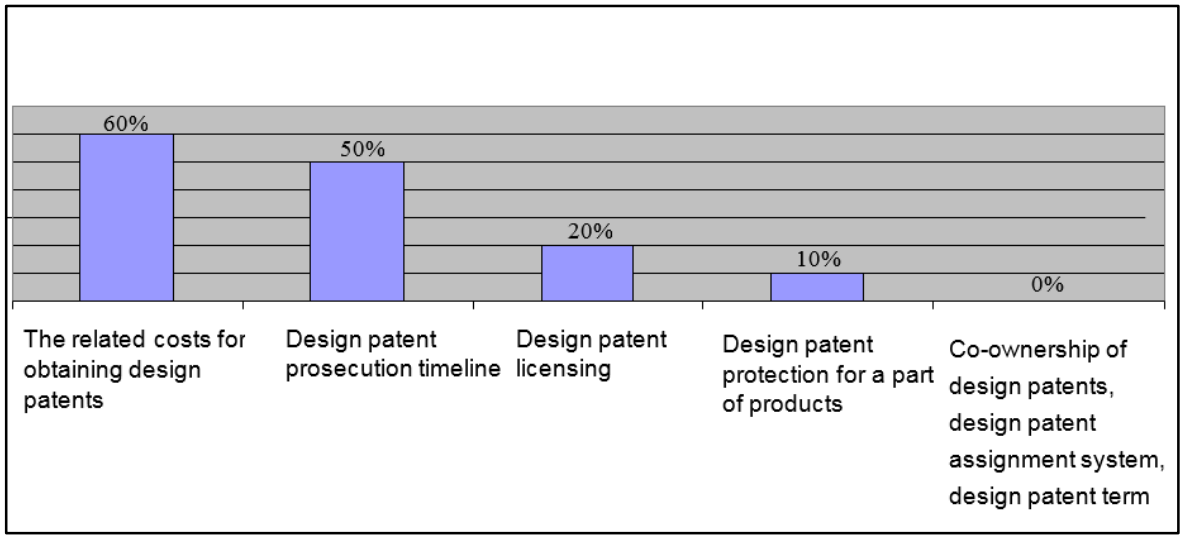
Regarding trademark, cost too is the biggest concern of the US and European companies doing business in Viet Nam. These companies were very much concerned about the following factors: trademark prosecution timeline, related costs for obtaining trademark and trademark maintenance fee, but did not consider the following factors: rescission of trademark registration based on non-use, trademark invalidation proceedings, co-ownership trademark rights, trademark term, and membership of international trademark law treaties. Moreover, 40 percent of the companies interviewed considered the following factors: trademark assignment term, trademark licensing, trademark injunctions, and trademark damages. These results show that some US and European companies chose to license their trademarks, but others preferred to keep trademarks for their own use only. The survey also showed that 30 percent of the companies interviewed considered the type of trademark. Apart from the items listed in the questionnaires, 40 percent of the companies interviewed considered any other matters of trademark rights, in particular, infringement remedies. This matter is also the key concern of the US and European companies interviewed, with their representatives saying they were faced with the infringement of their trademark when operating in Viet Nam.

Figure 11.8: Trademark-Related Matters Considered Before Establishing Subsidiaries



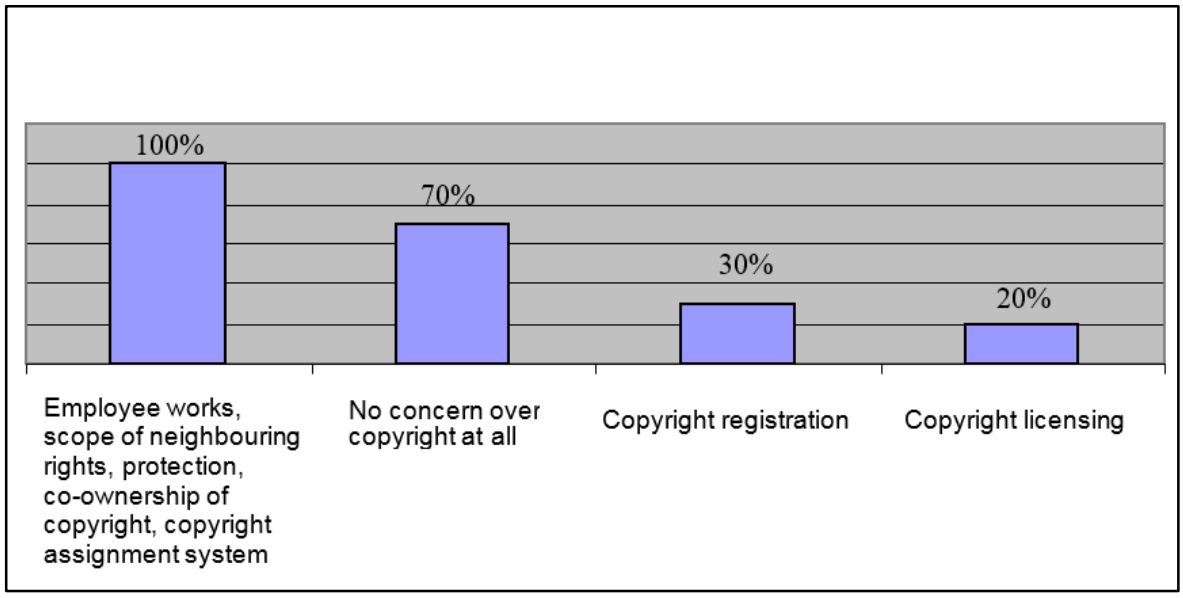
Regarding design patent, 60 percent of the companies interviewed considered the costs relating to the following factors: related costs for obtaining design patents and design patent maintenance fee. Half of the companies interviewed considered the quality of the design system such as design patent prosecution timeline. Twenty percent of the companies interviewed considered design patent licensing but only 10 percent of them considered design patent protection for a part of the products. The companies in the study did not consider the following factors: co-ownership of design patents, design patent assignment system, design patent term, design patent injunctions, design patent damages, and membership of international design patent law treaties. Forty percent of the companies did not answer the questions relating to design patent which suggests they did not consider design patent at all before establishment.

Figure 11.9: Design-Related Matters Considered Before Establishing Subsidiaries



Regarding utility model patent, none of the companies interviewed answered the related questions, meaning, they did not consider utility model patent at all before establishment. This result is similar to that for the utility model patent in the IP system in general.

Figure 11.10: Copyright-Related Matters Considered Before Establishing Subsidiaries

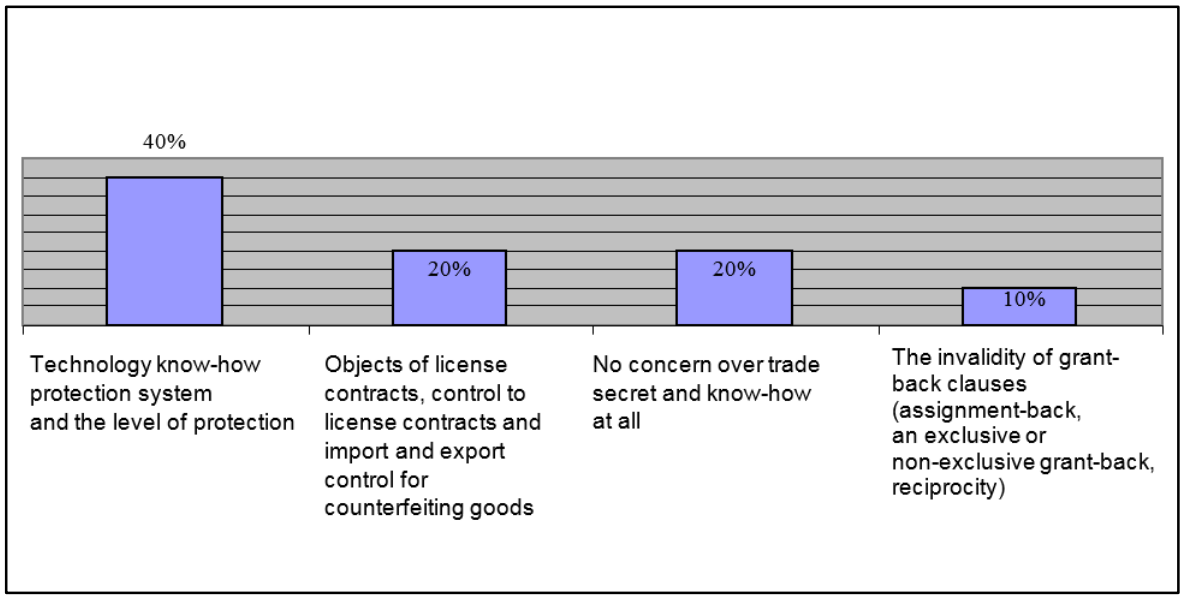


Regarding copyright, although 30 percent of the companies interviewed considered copyright registration and 20 percent of them considered copyright licensing, none of them considered any of the following factors: employee works, scope of neighbouring rights protection, co-ownership of copyright, copyright assignment system, copyright term,

copyright injunctions, copyright damages, the level of criminal punishment for copyright infringement, and membership of international copyright law treaties. Moreover, 70 percent of the companies interviewed did not answer the related questions, which means they did not consider copyright at all before establishment. This result is also consistent with that of copyright in the IP system in general.

Regarding trade secret, know-how, and IP-related areas, 40 percent of the companies interviewed considered technology know-how protection system and the level of protection. Twenty percent of them considered the following factors: objects of licence contracts, control to licence contracts, and import and export control for counterfeiting goods (injunctions). Only 10 percent of the US and European companies considered the following factors: the invalidity of grant-back clauses (assignment-back, exclusive or non-exclusive grant-backs, reciprocity grant-back) and trade secret protection system and the level of protection (not including technology know-how). And 20 percent of the companies interviewed did not consider IP-related areas at all before establishment.

Figure 11.11: Specific Matters Related to Trade Secret, Know-how, and IP that Are Considered Before Establishing Subsidiaries

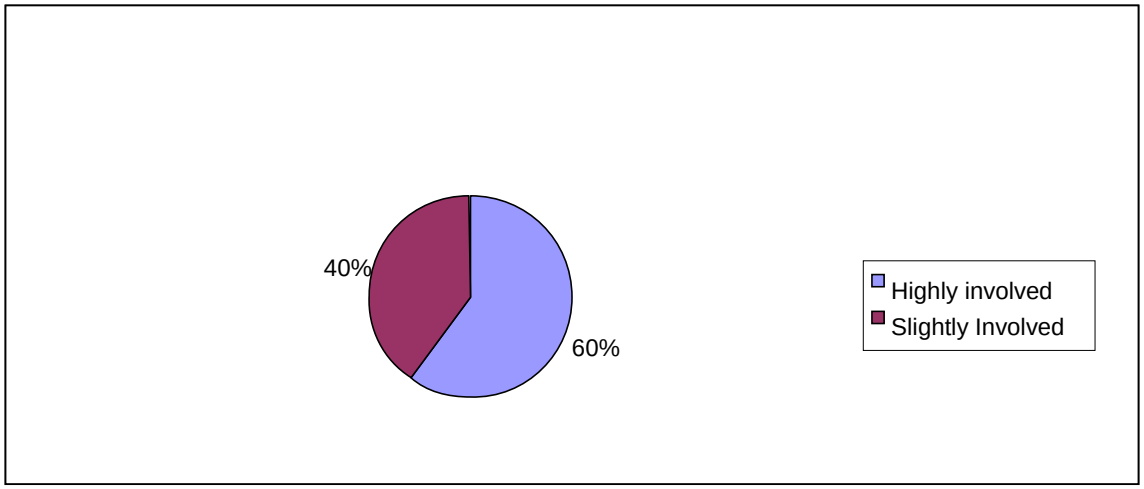


3.3. Involving the degree of decision-making of overseas expansion from the parent company

As stated in Section 11.1, all of the US and European companies interviewed said they

were involved in IP before and after establishment in Viet Nam—60 percent of them were highly involved and 40 percent were slightly involved in IP regarding overseas expansion. This result shows that IPR and the IP system are important factors being considered and affect FDI in the ASEAN region.

Figure 11.12: Degree of Involvement by Parent Company in Deciding to Expand Overseas



4. Problems Concerning IPR and IP System after Subsidiary Establishment

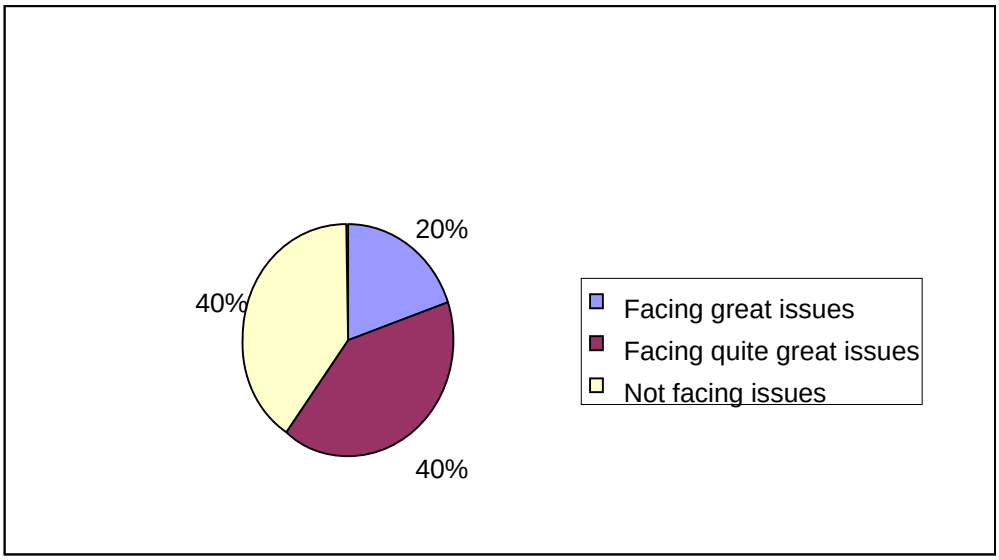
4.1. IP system in general – The extent to which the issue is faced after establishment

Regarding trademark, as noted above, all US and European companies interviewed were concerned about IP issues in general and trademark in particular. All of them considered trademark as an important factor affecting FDI in Viet Nam and in ASEAN. The survey results show the extent to which they were faced with the issue after their establishment: 20 percent of the companies faced major issues, 40 percent of them faced quite big issues, and 40 percent did not answer. This may mean that they did not face any issue at all or that they faced only minor problems with trademark. The survey results also revealed that trademark continues to be the main factor affecting future expansion decisions of the companies in the region.

Regarding other IP matters (such as patent, design patent, utility model patent, copyright, trade secret and know-how), surprisingly, none of the US and European companies interviewed did not answer the questions, which means they did not face any IP issues at all. Perhaps unlike trademark, patent, design patent, utility model patent, copyrights, trade secret

and know-how are not big issues to them whilst doing business in Viet Nam.

Figure 11.13: Extent to which Trademark Issue Is Faced After Establishing Subsidiaries



4.2. Specific matters concerning IPR – Issues faced after establishment

As far as the detailed issues related to trademark are concerned, 40 percent of the companies interviewed faced the following issues: trademark injunctions and any other matters concerning trademark rights—infringement remedies. It shows that the companies were faced with infringement and thereby were concerned about the remedies they could get in case of trademark infringement in Viet Nam. Most of the companies interviewed said they faced infringement of trademark when doing business in Viet Nam but they resolved these matters through negotiation rather than going to court. Moreover, 10 percent of the companies interviewed faced any other matters on trademark rights, in particular, the examination procedure. The US and European companies reported they were concerned about the quality of the IP system. In particular, the examination procedure for both formal and substantive examinations are very long in Viet Nam. Such obstacles need to be removed to attract more FDI in the future.

Regarding other IP objects (patent, design patent, utility model patent, copyright, and IP-related areas), like the survey results related to the IP system in general, 100 percent of companies interviewed did not face any patent, design patent, utility model patent, copyright, and IP-related matters after establishment.

4.3. Specific IP problems faced after overseas expansion

During the interviews, many representatives of the US and European companies revealed in confidence that their companies faced IPR issues in Viet Nam and other countries and they asked interviewers to keep this information confidential. Regarding the IP problems faced by the companies interviewed after overseas expansion, the detailed survey results are as follows: some companies said that IP enforcement is not so good and the examination procedure is long in Viet Nam. Some other companies have had disputes over trademark in Viet Nam but they settled by way of negotiation, not by going to court. One company's trademark and domain names were infringed but a settlement was reached via mediation. Moreover, some companies' products are imitated and copied illegally in Viet Nam but the scope of infringement is small and the products are not sold successfully. Regarding the infringement of trademark outside Viet Nam, one company was faced with trademark infringement in Syria. Some companies involved in electrical and transportation machines production did not worry much about IP in Viet Nam because their products are unique and difficult to imitate. For one MNC that produces foods and drugs, all related patents were filed before it sold its drugs and foods in Viet Nam. Apart from the items covered by the questionnaires, some companies interviewed worried about grey market products, which hampers their competitiveness. It shows that IP enforcement in Viet Nam is not very effective.

5. Summary

First, IP is highly involved in Viet Nam in decision-making at the parent company level for overseas expansion before and after establishment, which indicates that IP is one of the key issues affecting FDI in Viet Nam. That is the reason IP is one of the major concerns and key discussion points within the framework of TPP and BTA at present.

Second, the IP system has improved, but IP awareness of stakeholders in Viet Nam is still limited and IP enforcement in most ASEAN countries still weak. Viet Nam needs to have more education for IP; Viet Nam's IP Office needs to have qualified personnel.

Third, trademark is the biggest concern of US and EU companies in Viet Nam. IP is a minor issue for US and EU companies before establishment, but they often face and have to resolve trademark matters after establishment. Disputes over IP were settled through negotiation in Viet Nam.

Fourth, one of the main reasons the numbers of patent filings and trademark registrations in Viet Nam have been small is that the patent and trademark examination procedures of Viet Nam's IP Office are very long. Companies are also concerned about the cost for IP registration and filing.

Fifth, many companies such as General Electric and Cisco Systems, Inc. do not want to file patents in Viet Nam but keep their know-how secret.

Part IV

Problems and Challenges of Intellectual Property Systems in ASEAN

CHAPTER 12

Summary of the Research

1. Problems and Challenges Concerning IP Systems in ASEAN Countries

1.1. Overall description

Although EU and US companies showed greater concern about IP-related issues before expansion to ASEAN than Japanese, Chinese, and Korean companies, the main factors considered by most companies before expansion were cost-related and market-related factors—'labour cost', 'size and growth rate of GDP', and 'size and growth rate of the relevant market'. IP-related factors such as 'level of legal development concerning intellectual property rights' and 'level of implementation and enforcement of intellectual property law" were considered less before expansion. But after establishment of a new subsidiary, the order of concerns changed and IP-related factors were perceived as major issues. The overall tendency shows that among various IPRs, trademark-related issues, in particular, were of relatively great concern.

In this sense, IP and IP-related systems in ASEAN countries did not so much affect investment in ASEAN countries at the first stage. However, after subsidiaries were established in ASEAN countries, most companies faced problems with IP and IP-related issues. Indeed, the questionnaire response showed that all of the companies surveyed had experienced some kind of problems with their IP and IP-related systems in ASEAN countries. Some problems were serious and had something to do with the wide variety of IP issues covering patent, trademark, design trade secret, and other IP-related issues. Some of the companies were suffering from serious counterfeiting of products along with various types of infringement of their IPR. One of the multinational corporations (MNCs) described their experience as follows:

> After establishment of subsidiaries in an ASEAN country, we suffered from many IPR-related problems including counterfeiting of products and an excessively long timeline for obtaining IPR. We could not get IPR to protect our business even though we applied for it long ago. Such situation hinders us from expanding our business into ASEAN countries.
>
> Even in apparent misappropriated examination case, the burden of evidence is on the company's side. We had to pay a considerable fee for the

> lawsuit and for procedures of verification. Even though, we could not delete misappropriated trademark. In this situation, we cannot trust the function of trademark system in that country.
>
> When encountering IP problems, we used to try to find the relevant IPR system to solve it in ASEAN. In ASEAN, even if the relevant legislative system was established, we often found that the system was not in fact operational. If we find it is not operational and there is no enforcement, we cannot do anything and feel disappointed.

This observation suggests that the problems with IP systems faced by companies may increase the withdrawals of subsidiaries in ASEAN countries. One of the possible conclusions is that a good IP system in ASEAN may not be so effective in terms of increasing investment, but effective in terms of sustaining investment in ASEAN countries. The results suggest that it is important for ASEAN countries to enhance the protection of IP, especially in terms of trademark and trade secret, to prevent the reshoring of foreign companies. Policymakers of ASEAN countries should understand the important effects of IP protection on actual business to keep consistent economic growth of their countries.

Of course, IP plays an important role in attracting investments, too. Our survey data shows that the IP departments of MNCs were highly involved in decision-making concerning expansion to ASEAN for 32 percent of headquarters. This was the case for the US and EU companies, in particular, with some 55 percent responding that their IP divisions were highly involved. Some of them had studied especially trademark issues in detail before deciding to invest in the country concerned (Thailand). According to the survey results, direct investment into ASEAN countries may be affected not only by other key economic factors but, to some extent, also by IP issues. Especially in US and EU companies, IP departments tend to be deeply involved in the decision-making process; they may, in fact, change their business model according to the IP protection level in the target country.

1.2. Lack of IPR information

Most companies that expanded to ASEAN faced a similar problem—it was difficult to get sufficient information about IP-related systems and paradigms. For example, many companies complained about a lack of clarity about the standards of IPR examination, the procedures of IPR examination, and the current status of a particular IPR application. IPR offices in ASEAN countries should establish a well-developed information system, including information about examination procedures, examination guidance and standard, and the current examination status of a particular application. In this regard, most companies strongly desired information in English.

Such a database and infrastructure that provides information is needed for companies to be able to access the appropriate information regarding IPR. The results of our interviews show that the lack of information is partly due to a lack of knowledge about IPR on the part of local agents. Some of the interviews revealed that local agents were not qualified to provide the relevant legal services due to their lack of specialised IPR knowledge, for example, on prior arts in the technology field, and on the preparation of the documents required for an application. These results show that to provide sufficient and high quality information for users, professional human resource development by the government, as well as the establishment of an IPR information system, is necessary.

1.3. Cost and timeline

According to the results of the interviews and questionnaire survey, the expense involved in obtaining IPR in ASEAN, especially that for trademark and patent, was regarded as too high. The costs involved are not just the payment to the patent office but also the cost of a local attorney and for translation. This means the total cost of going through the IPR process in ASEAN countries can turn out to be higher than in the US and Europe.

Apart from the cost issue, the long time it takes to obtain a patent, trademark, or design patent was a serious concern for most of the companies surveyed including the US, EU, Japan, China, and Korea. In some countries, when applying for a patent, the applicant had to wait for a decision from the US examination because it seemed the examiners waited for the examination result of the USPTO.

One chemical company surveyed submitted about 25 patent applications with the local patent office in 2005 and 2006, but had received only two licenses as of 2014. In some cases, the examination took more than 10 years. In a rapidly changing environment, the IPR system in such countries would not be helpful for business. Especially when the life cycles of products are short, if it takes so much time to obtain IPR, it is no longer necessary.

1.4. Enforcement

A number of ASEAN countries lack strong implementation and effective law enforcement of IPR law.

Most companies surveyed believed the negative impact of counterfeit products is strong and these should be eliminated by protecting IPR. Trademarks of consumer products in particular are likely to be infringed in most ASEAN countries and, after establishment, the damage caused by this is recognised as an important problem. Then effective measures of appropriate enforcement system are inevitable to address IPR infringement. Recent activities of counterfeiting producers are getting complicated such as the goods and the trademarks are separately entered into a country, and then combined together and sent into the market. To stop such infringement, ASEAN counties should adopt new strategies to curb the counterfeiting of goods, including use of police power.

1.5. Harmonisation

Many of the companies surveyed indicated that the harmonisation of patent examination systems is very important. Regarding trademark of ASEAN countries, for example, only the Philippines and Viet Nam are members of the Madrid Protocol. This means that although companies can use the Madrid Protocol to apply for trademark registration in the Philippines and Viet Nam, they must apply for trademark registration separately in other ASEAN countries. It would clearly be beneficial if ASEAN countries could harmonise their trademark registration system, including adherence to the Madrid Protocol. As for design protection, only Singapore and Brunei Darussalam are members of the Hague Agreement Concerning the International Registration of Industrial Designs.

1.6. Trade secret

In this study we found that many MNCs were concerned about trade secret protection systems in ASEAN countries. Overall, trade secret was one of the IPR issues the companies surveyed were most concerned about, alongside concerns about trademark protection, and more so than about patent protection, copyright protection, and others. This was an unexpected finding and an interesting result in terms of how we consider IPR in ASEAN. It also shows that trade secret protection is a major factor considered both before and after expansion. It indicates that many MNCs are involved in the transfer of their technology know-how to ASEAN countries, and particularly in the communication, chemical, and transportation fields, they are dependent on the protection of their trade secrets.

The survey results showed the increasing concerns of Asian companies about technology know-how and trade secret protection, implying that insufficient trade secret protection may lead to reshoring to their home countries. These companies are afraid that their trade secrets may leak to their competitors due to high labour mobility.

Strengthening the protection of know-how and trade secret is important for preventing the withdrawals of Asian companies established in ASEAN.

1.7. Other IP-related systems

EU and US companies in particular are highly concerned about IP-related systems, such as inadequate import and export controls of counterfeit goods, lack of a transparent and predictable tax system regarding transfer pricing, and inadequate control of license contracts and export controls on technology transfer. Asian companies have not attached great importance to these particular matters yet. However, an increasing IP awareness of Asian companies provides an opportunity to promote FDI by improving these IP-related systems as well as the IPR system itself.

1.8. IPR issues related to R&D activity

Some MNCs attached importance to the employee invention system in ASEAN countries. Recently, quite a few companies have been conducting R&D activities in ASEAN countries, particularly in Singapore. Stimulating R&D activities in ASEAN countries would foster innovation. In this sense, too, strengthening the IPR system in relation to R&D activity would be beneficial for economic growth.

2. Problems and Challenges Concerning the IP System in Each Country

In this survey, although the total number of respondents is less than 100, we have a certain level of information about the IPR situation in Indonesia, Singapore, Thailand, and Viet Nam. However, we had a very limited number of respondents from Malaysia and the Philippines. The inhomogeneity of respondents makes it difficult to accurately describe the differences between these countries. However, a rough analysis of each country is possible through the respondents' replies to the survey on the IPR situation of each country. According to the survey, Singapore has the most advanced IPR system of all ASEAN countries. The IPR systems of Thailand, Indonesia, and Viet Nam have considerable

problems, particularly with regard to enforcement. There are also countries, such as Myanmar, whose fundamental IPR system is still being developed.

The following are brief summaries of the problems and challenges concerning the IP system in each country.

2.1. Singapore

Our study suggests that there is no major problem with the IP system in Singapore, except for a relatively weak enforcement system, especially regarding border controls, as some of the companies surveyed pointed out. Singapore has a relatively high number of IPR specialists. Compared with other ASEAN countries, Singapore was perceived by the companies surveyed as relatively attractive as its overall IP system is sound by international standards.

Recently, Singapore has been attracting companies for R&D activities as it has a good supply of talented researchers and engineers. This is probably the reason its employee invention system is more improved than that of other countries.

However, due to the small size of Singapore's market, many companies have no incentives to file their patent rights there. Nonetheless, if Singapore can take the leadership in establishing a harmonised IP system within ASEAN, MNCs would be very keen to establish their Asian base in Singapore. In this sense, Singapore can potentially become ASEAN's IP hub.

2.2. Thailand

Regarding patent- and trademark-specific issues, high cost and an excessively long and complicated timeline for obtaining IPR were a bigger concern for companies surveyed in Thailand than in other ASEAN countries. Some companies complained about examination periods of over 10 years and high costs, including local agent fees and translation fees. Patent injunction and patent damages are also issues companies were more highly concerned about in Thailand than in other ASEAN countries. Improvement of the IPR system and the examination capacity in particular is highly needed to attract further sustainable direct investment to Thailand. Moreover, greater harmonisation efforts, such as becoming a member of the Madrid Protocol, is also highly desirable.

2.3. Indonesia

Law enforcement and timeline for registration of IPRs were some of the most frequently

mentioned problems by MNCs surveyed regarding the IP situation in Indonesia. It is clear that solving these problems are likely to encourage MNCs to expand their business in the country. Enhancement of IP information system and lack of enforcement are the key areas that could support enhancement of Indonesia's IP system according to the survey respondents. Moreover, the trade secret protection system was of greater concern to the companies surveyed than in other ASEAN countries. Greater harmonisation efforts, like becoming a member of the Madrid Protocol, was also strongly desired by survey respondents.

2.4. Viet Nam

Issues of concern in Viet Nam are similar to those for other ASEAN countries, but some of the companies surveyed rated Viet Nam's IPR system and IPR enforcement higher.

2.5. Other ASEAN countries

Many other ASEAN countries still need to improve their IPR systems considerably or fundamentally. For example, Myanmar is still constructing the fundaments of its IPR system. Tentatively, 'Cautionary Notice' based on 'Registration Act' is used to protect trademark. Other ASEAN countries and advanced countries should support the establishment of fundamental IPR systems in CLMV countries (Cambodia, Lao PDR, Myanmar, and Viet Nam) first of all.

CHAPTER 13

Recommendations

The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration. The 10 member states of ASEAN are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam. Although they are all part of the Southeast Asian region, their history, culture, and language are quite different. Their economies, too, have big differences, with gross domestic products (GDPs) ranging from USD8.3 billion USD847 billion.

One of the aims of ASEAN is to accelerate economic growth and promote active collaboration on matters of common interest in economic areas. Establishment of a common intellectual property right (IPR) system in ASEAN should contribute to accelerating economic growth in the region. The development of a regional intellectual property (IP) system has been conducted through the ASEAN Working Group on Intellectual Property Cooperation (AWGIPC), which was established in 1996 by the ASEAN Framework Agreement on Intellectual Property Cooperation. Since 2004, the AWGIPC's work has been based on the IPR Action Plan 2004–2010 and the Work Plan for ASEAN Cooperation on Copyrights.

The IPR Action Plan 2004–2010 aims to:

(1) Help accelerate the pace and scope of IP asset creation and commercialisation, and the formation of domestic and cross-border linkages in S&T fields and R&D activities.

(2) Harmonise an enabling IPR registration, protection, and enforcement framework of policies and institutions in ASEAN.

(3) Promote greater public awareness, and build up human resources and institutions relating to IP and IPR in ASEAN.

(4) Further empower national IP offices in the collaborative provision of BDS in support of the above objectives.

The currently active IPR Action Plan 2011–2015 was based on Action Plan 2004–2010.

Our observations on multinational corporations (MNCs) and the results of this survey have directed attention to the IPR Action Plan and the following recommendations of this report are in line with it.

To promote foreign direct investment (FDI) in ASEAN to boost economic growth, we recommend that all countries formulate and implement laws and policies that ensure appropriate levels of IP protection and more effective IP enforcement. The following recommendations are derived from the conclusions of our study.

1. Reliable System and Effective Enforcement

Uncertainty about the IPR application process and IPR enforcement is a serious issue for the players of increasing FDI. Inconsistencies in law enforcement and corruption of the process are highly damaging. Policymakers and governments should pay attention to these issues as much as possible at the beginning of the improvement process.

Counterfeiting is a serious and critical problem because it may destroy business. Recently, the routes and methods of producing counterfeit products and putting them on the market have become more complicated and sophisticated. Criminal and civil sanctions are effective to prevent wilful counterfeiting. Customs controls should be in the front line of preventing such IPR infringing goods from entering the ASEAN market. Police power is also important to prevent counterfeiting of products and piracy.

To be able to establish the necessary effective enforcement systems, all countries and ASEAN need a special organisation with skilled professionals. Policymakers and governments should pay greater attention to this issue to improve the situation. Governments of advanced countries too should support the establishment of reliable IPR processes and enforcement mechanisms in ASEAN.

2. Transparency of the System

Insufficient information about the IPR system may cause mistrust by companies that had established, or are planning to establish, subsidiaries in ASEAN. High quality information about the standard of IPR examination, the procedure of IPR examination, current status of a particular IPR application, and others should be provided on time. IPR offices in ASEAN countries should establish a well-developed information system and governments of advanced countries should support the establishment of a reliable IPR information providing system in ASEAN.

3. IPR System and Enforcement as a User-friendly Service

Excessively long and complicated timelines to obtain IPR are some of the main issues of annoyance and concern regarding IPR for companies that are considering investing or have invested in ASEAN countries. However, as the resources of patent offices are limited, improving the situation immediately may be difficult.

Such concerns are reasonable because companies intend to protect their products by obtaining IPR in a timely fashion. Otherwise, they have to carry out their business activities without any IPR protection. Especially in cases of products with a short life cycle, long and complicated timelines to obtain IPR become more serious. Companies request the local patent office to decide on their applications as soon as possible. Although it is not easy for the patent office to shorten the decision process, it should at least respond to requests for accelerated process. Appropriate decisions at the early stage of processing directly lead to protection of business and contribute to the economy.

Cost issues are similar to timeline issues. Recently, not only large companies but also many small and medium enterprises have been establishing subsidiaries in ASEAN countries. Reasonable timeline and cost of IPR are necessary elements of a user-friendly IPR service, not only for existing users but also for potential users. Government and related organisations should take appropriate actions to provide user-friendly service to meet the real demands of business.

4. Greater Harmonisation of IPR in ASEAN

The current situation regarding IPR in ASEAN is very diverse, as there is big difference in the IPR situation between Singapore and Myanmar. Because of the large disparities between countries, it may be unrealistic to unify all their systems into one ASEAN system. Nevertheless, ASEAN countries can regard the harmonisation issue as an opportunity to understand each other and to solve problems together. During the discussions, ASEAN countries will find down-to-earth solutions for harmonisation. It can be achieved not only by changing the whole system but also through other options.

Among others, ASEAN countries should join some of the important international treaties, such as the Madrid Protocol and the Hague Agreement Concerning the International

Registration of Industrial Designs, as one appropriate course of action.

Second, the ASEAN Patent Examination Co-operation (ASPEC), which is the first regional patent work-sharing programme among nine ASEAN countries, is expected to harmonise the substantial examination. This programme aims to share search and examination results between the participating offices to allow applicants in participating countries to obtain corresponding patents faster and more efficiently. The programme is expected to reduce duplication of search and examination work carried out, thereby saving time and effort. However, so far there have been few users, possibly because the programme is not known to most potential users. ASEAN should provide sufficient information about ASPEC to help support this programme. The role of the Singapore patent office, which is expected to operate as the hub of the system, is very important. In this sense, from the viewpoint of potential users, the level of the IPR system and enforcement of the Singapore patent office will be evaluated as the reliability of ASPEC.

Third, the patent offices in ASEAN countries should learn from the patent examination information highway established by three offices (US, EU, Japan) or by five offices (US, EU, Japan, Korea, and China) to study the practical measures towards substantial examination harmonisation as well as effective international cooperation.

5. Stronger IPR as an Innovation-driven System

ASEAN countries are expected to grow their economics by a strong innovation policy as Japan, Korea, and China have adopted strong innovation policies and grow their economies to last several decades. From the experiences of these other countries, the first key issue is how to develop a high quality manufacturing industry. Development of a manufacturing industry contributes to creating local jobs and increasing GDP. Technology protection through patent, utility model, and trade secret protection are relatively more important than other IPR issues to attract such manufacturing industry.

We recommend strengthening such IPR protection in ASEAN countries, which should contribute to promoting domestic technologies and induce FDI to establish local manufacturing subsidiaries. Accordingly, we recommend that ASEAN governments cooperate closely with US, EU, Chinese, Japanese, and Korean companies to promote their domestic technologies, which would eventually require stronger IP protection, both for domestic and foreign companies.

The second important question is how to attract R&D. Innovation needs R&D activities in local regions. Except in Singapore, not many MNCs conduct R&D in ASEAN. To promote R&D activities by MNCs, employee invention systems and improvement of export and import regulations of IPR transfer are expected to contribute to attracting resources for the local innovation system.

6. Education and Awareness from a Long-term Perspective

Our survey report shows that lack of information is partially caused by lack of knowledge of local staff about IPR. Professional human resource development by governments is very much needed. We recommend ASEAN governments to provide appropriate education and training for legal professionals responsible for IP in their jurisdictions to develop qualified personnel who can provide the desired legal services concerning patent and other IP.

Although improving education and increasing awareness are important to solve current problems, it would usually take considerable time for such measures to be effective. In that sense, short-term and temporary action may not be so effective. ASEAN governments should increase public awareness continuously through education with a long-term perspective.

Advanced countries should support such education programmes, utilising local educational tools modified for ASEAN countries.

For Japanese, Chinese and Korean companies

Quentionnaire Sheet
On the determinants of establishing affiliations in ASEAN countries

Company Name: _____

Name/Division (1): _____

Name/Division (2): _____

Name/Division (3): _____

1. Profile of local subsidiaries and Plan to establish a new subsidiary in ASEAN countries

(A) Profile of local subsidiaries in ASEAN

※Please choose two countries with the largest amount of investment if you have expanded into two or more countries in ASEAN and answer for those two countries respectively. Please choose the largest subsidiary in terms of the amount of investment if you have multiple subsidiaries in the same country.

		Country 1	Country 2
Local subsidiaries	Operating country (=A-country)	( )	( )
	Year of establishment	( )	( )
	Type of business (e.g. automobile parts)	( )	( )
	Type of activities (Production, Sales, R&D, or Mix)	( )	( )
	→Please enter the largest activity in terms of the amount of investment if your activity is "Mix". e.g. Production	( )	( )
	Method of establishment (eg. Self-establishment, M&A, Joint venture, or Capital investment)	( )	( )
	Investment ratio of parent company (%)	( )	( )
	Sales and Profit rate (in FY2012)	Sales: ( ) Profit rate: ( )	Sales: ( ) Profit rate: ( )
	Number of employees and ratio of local employees	Num. of employees: ( ) Ratio of local employees: ( )	Num. of employees: ( ) Ratio of local employees: ( )

(B) Plan to establish a new subsidiary in ASEAN

※Please answer the following questions if you are planning to establish a new subsidiary in ASEAN countries. Please chose the largest country in terms of the expected amount of investment if you are planning to establish new subsidiaries in multiple countries.

		Yes	No
Plan	Do you have a plan to establish a new subsidiary in ASEAN countries within 5 years?		
	Country where you are planning to establish a new subsidiary (=B-country)	( )	
	Type of business (e.g. automobile parts)	( )	
	Type of activities (Production, Sales, R&D, or Mix)	( )	
	→Please enter the largest activity in terms of the amount of investment if your activity is "Mix". e.g. Production	( )	

2. Determinants of establishing a new subsidiary in ASEAN countries and Issues facing

※If you are unfamiliar with the details at the time of decision on establishment, please answer assuming that you are establishing a new subsidiary at this moment. (Please circle the number (1 or 2) so that we can identify which of the time you are answering.)

(1) General matters		A-Country 1 (already established)		A- Country 2 (already established)		B- Country (planning)
		Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors for establishment
General matters	Size and growth rate of GDP					
	Size and growth rate of the relevant market					
	Price level					
	Stability of exchange rate with Japanese yen					
	Wage level (labor cost)					
	Quality of human capital					
	Ease of establishing sales channels					
	Ease of procuring raw materials, components, etc.					
	Receptiveness to foreign products by local customers					
	Number of existing competitors in the relevant market					
	Level of legal development concerning intellectual property rights					
	Level of implementation and enforcement of intellectual property law					
	Country risk (political, religious stability, disaster, etc.)					
	Completeness and reliability of infrastructure					
	Size and growth of the relevant market in neighboring countries					
	Number of prior establishment of local subsidiaries from home country and/or other advanced countries					
	Trade barriers or trade friction					
	Requirements for operating permit (regarding procurement of raw materials, investment ratio, etc.)					
	Distance from home country					
	Distance from neighboring country with large market					
	Corporate tax rate					
	Existence of preferential treatment system (favorable taxation system, etc.)					
	Regulations on currency repatriation and exchange					
	Others (pleased fill in:)					

(2) Your perception of intellectual property system		A-Country 1 (already established)		A- Country 2 (already established)		B- Country (planning)
		Please circle(○) the number that indicates the degree to which you have considered before establishment (1. at the time of decision on establishment 2. at this moment)	Please circle(○) the number that indicates the degree to which you are facing the issues after establishment	Please circle(○) the number that indicates the degree to which you have considered before establishment (1. at the time of decision on establishment 2. at this moment)	Please circle(○) the number that indicates the degree to which you are facing the issues after establishment	Please circle(○) the number that indicates the degree to which you are considering for establishment
		1: Not considered at all ↓ 5: Highly considered	1: Not facing at all ↓ 5: Facing great issues	1: Not considered at all ↓ 5: Highly considered	1: Not facing at all ↓ 5: Facing great issues	1: Not considered at all ↓ 5: Highly considered
IP system	Scope of Patent rights (patentability)	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of Trademark rights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on trademark rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on trademark rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of design patent rights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on design patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on design patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of utility model patent rights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on utility model patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on utility model patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of copyrights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on copyrights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on copyrights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Technology know-how protection system and the level of protection	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Trade secret protection system and the level of protection(not including technology know-how)	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

(3)Specific matters on IPRs			A-Country 1 (already established)		A- Country 2 (already established)		B- Country (planning)
			Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors for establishment
Specific matters on IPRs	patent	Patent prosecution timeline					
		The related costs for obtaining patents (including patent attorney fees and translation costs)					
		Patent maintenance fee					
		Home country application system					
		Employers' duty in employee invention					
		Correction of patents					
		Patent invalidation proceedings					
		Exercises on compulsory licensing rights					
		Coownership of patent rights					
		Patent assignment system					
		Patent licensing system					
		Patent term					
		Patent injunctions					
		Patent damages					
		Membership of international patent law treaties					
		Secret patent system(Patents application indicating national security)					
		Any other matters on patent rights (pleased fill in:)					
	Trademark	Types of trademark					
		Trademark prosecution timeline					
		The related costs for obtaining trademark (including patent attorney fees and translation costs)					
		Trademark maintenance fee					
		Rescission of trademark registration based on non-use					
		Trademark invalidation proceedings					
		Coownership of trademark rights					
		Trademark assignment system					
		Trademark licensing					
		Trademark term					
		Trademark injuctions					
		Trademark damages					
		Membership of international trademark law treaties					
		Any other matters on trademark rights (pleased fill in:)					

(3)Specific matters on IPRs (cont.)			A-Country 1 (already established)		A- Country 2 (already established)		B- Country (planning)
			Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors for establishment
Specific matters on IPRs (cont.)	Design patent	Design patent prosecution timeline					
		The related costs for obtaining design patents (including patent attorney fees and translation costs)					
		Design patent maintenance fee					
		Design patent protection for a part of products					
		Coownership of design patents					
		Design patent assignment system					
		Design patent licensing					
		Design patent term					
		Design patent injuctions					
		Design patent damages					
		Membership of international trademark law treaties					
		Any other matters on design patent rights (pleased fill in:)					
	Utility model	Utility model patent prosecution timeline					
		The related costs for obtaining utility model patents (including patent attorney fees and translation costs)					
		Utility model maintenance fee					
		Coownership of utility model patents					
		Utility model assignment system					
		Utility model patent licensing					
		Utility model patent term					
		Utility model patent injunctions					
		Utility model patent damages					
		Utility model technical opinion					
		Any other matters on utility model patent rights (pleased fill in:)					
	Copyright	Employee works					
		Scope of neighboring rights protection					
		Copyright registration					
		Coownership of copyright					
		Copyright assignment system					
		Copyright licensing					
		Copyright term					
		Copyright injunctions					
		Copyright damages					
		the level of criminal punishment for copyright infringement					
		Membership of international copyright law treaties					
		Any other matters on copyright (pleased fill in:)					
	IP related area	The invalidity of grant-back clauses (assignment-back,a exclusive or non-exclusive grant-backs,reciprocity grant-back)					
		The invalidity of NAP clauses					
		A transparent and predictable tax system on transfer pricing					
		Licensor's warranty obligation					
		Rates control for license fee					
		Export Controls on technology transfer					
		State of headhunting and an employee's duty to refrain from competition					
		Objects of licence contracts					
		Control to licence contracts					
		Contractor registration system					
		Establishment and enforcement of a system similar to Bayh-Dole					
		Import and export control for counterfeiting goods (Injunctions)					
		Technology know-how protection system and the level of protection					
		Trade secret protection system and the level of protection(not including technology know-how)					
		Any other matters on IP related issues (pleased fill in:)					

(4)To what extent do IP sectors in your company involve in the decision-making of overseas expansion?

1. Highly involve 2. Slightly involve 3. Not involve

(5) Please describe specifically the problems concerning intellectual properties which you are facing after overseas expansion, including the name of the country.

Thank you for your cooperation!

For US and European companies

Qustionnaire Sheet
On the determinants of establishing affiliations in ASEAN countries

Company Name: _____

Name/Devision (1): _____

Name/Devision (2): _____

Name/Devision (3): _____

1. Profile of local subsidiaries and Plan to establish a new subsidiary in ASEAN coutries

(A) Profile of your company			
Profile	Operating country (=A-country)	( )	
	Year of establishment	( )	
	Type of business (e.g. automobile parts)	( )	
	Type of activities (Production, Sales, R&D, or Mix)	( )	
	→Please enter the largest activity in terms of the amount of investment if your activity is "Mix". e.g. Production	( )	
	Method of establishment (eg. Self-establishment, M&A, Joint venture, or Capital investment)	( )	
	Investment ratio of parent company (%)	( )	
	Sales and Profit rate (in FY2012)	Sales: ( )	Profit rate: ( )
	Number of employees and ratio of local employees	Num. of employees: ( )	Share of local employees: ( )
(B) Plan to establish a new subsidiary in ASEAN coutries ※Please answer the following questions if you are planning to establish a new subsidiary in ASEAN countries. Please chose the largest country in terms of the expected amount of investment if you are planning to establish new subsidiaries in multiple countries.			
Plan	Do you have a plan to establish a new subsidiary in ASEAN countries within 5 years?	Yes	No
	Country where you are planning to establish a new subsidiary (=B-country)	( )	
	Type of business (e.g. automobile parts)	( )	
	Type of activities (Production, Sales, R&D, or Mix)	( )	
	→Please enter the largest activity in terms of the amount of investment if your activity is "Mix". e.g. Production	( )	

2. Determinants of establishing a new subsidiary in ASEAN countries and Issues facing

※If you are unfamiliar with the details at the time of decision on establishment, please answer assuming that you are establishing a new subsidiary at this moment. (Please circle the number (1 or 2) so that we can identify which of the time you are answering.)

(1) General matters		A-Country 1 (already established)		B- Country (planning)
		Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors for establishment
General matters	Size and growth rate of GDP			
	Size and growth rate of the relevant market			
	Price level			
	Stability of exchange rate with Japanese yen			
	Wage level (labor cost)			
	Quality of human capital			
	Ease of establishing sales channels			
	Ease of procuring raw materials, components, etc.			
	Receptiveness to foreign products by local customers			
	Number of existing competitors in the relevant market			
	Level of legal development concerning intellectual property rights			
	Level of implementation and enforcement of intellectual property law			
	Country risk (political, religious stability, disaster, etc.)			
	Completeness and reliability of infrastructure			
	Size and growth of the relevant market in neighboring countries			
	Number of prior establishment of local subsidiaries from home country and/or other advanced countries			
	Trade barriers or trade friction			
	Requirements for operating permit (regarding procurement of raw materials, investment ratio, etc.)			
	Distance from home country			
	Distance from neighboring country with large market			
	Corporate tax rate			
	Existence of preferential treatment system (favorable taxation system, etc.)			
	Regulations on currency repatriation and exchange			
	Others (please fill in:)			
(2) Your perception of intellectual property system		A-Country 1 (already established)		B- Country (planning)
		Please circle(○) the number that indicates the degree to which you have considered before establishment (1. at the time of decision on establishment 2. at this moment)	Please circle(○) the number that indicates the degree to which you are facing the issues after establishment	Please circle(○) the number that indicates the degree to which you are considering for establishment
		1: Not considered at all ↓ 5: Highly considered	1: Not facing at all ↓ 5: Facing great issues	1: Not considered at all ↓ 5: Highly considered
IP system	Scope of Patent rights (patentability)	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of Trademark rights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on trademark rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on trademark rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of design patent rights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on design patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on design patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of utility model patent rights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on utility model patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on utility model patent rights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Scope of copyrights	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Development of legal system on copyrights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Operation of legal system on copyrights enforcement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Technology know-how protection system and the level of protection	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	Trade secret protection system and the level of protection(not including technology know-how)	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

(3)Specific matters on IPRs			A-Country 1 (already established)		B- Country (planning)
			Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors for establishment
Specific matters on IPRs	patent	Patent prosecution timeline			
		The related costs for obtaining patents （including patent attorney fees and translation costs)			
		Patent maintenance fee			
		Home country application system			
		Employers' duty in employee invention			
		Correction of patents			
		Patent invalidation proceedings			
		Exercises on compulsory licensing rights			
		Coownership of patent rights			
		Patent assignment system			
		Patent licensing system			
		Patent term			
		Patent injuctions			
		Patent damages			
		Membership of international patent law treaties			
		Secret patent system(Patents application indicating national security)			
		Any other matters on patent rights (pleased fill in:)			
	Trademark	Types of trademark			
		Trademark prosecution timeline			
		The related costs for obtaining trademark (including patent attorney fees and translation costs)			
		Trademark maintenance fee			
		Rescission of trademark registration based on non-use			
		Trademark invalidation proceedings			
		Coownership of trademark rights			
		Trademark assignment system			
		Trademark licensing			
		Trademark term			
		Trademark injuctions			
		Trademark damages			
		Membership of international trademark law treaties			
		Any other matters on trademark rights (pleased fill in:)			

(3)Specific matters on IPRs (cont.)			A-Country 1 (already established)		B- Country (planning)
			Please check(✓) the considering factors before establishment (1. at the time of decision on establishment 2. at this moment)	Please check(✓) for the issues facing after establishment	Please check(✓) the considering factors for establishment
Specific matters on IPRs (cont.)	Design patent	Design patent prosecution timeline			
		The related costs for obtaining design patents （including patent attorney fees and translation costs)			
		Design patent maintenance fee			
		Design patent protection for a part of products			
		Coownership of design patents			
		Design patent assignment system			
		Design patent licensing			
		Design patent term			
		Design patent injuctions			
		Design patent damages			
		Membership of international trademark law treaties			
		Any other matters on design patent rights (pleased fill in:)			
	Utility model	Utility model patent prosecution timeline			
		The related costs for obtaining utility model patents (including patent attorney fees and translation costs)			
		Utility model maintenance fee			
		Coownership of utility model patents			
		Utility model assignment system			
		Utility model patent licensing			
		Utility model patent term			
		Utility model patent injunctions			
		Utility model patent damages			
		Utility model technical opinion			
		Any other matters on utility model patent rights (pleased fill in:)			
	Copyright	Employee works			
		Scope of neighboring rights protection			
		Copyright registration			
		Coownership of copyright			
		Copyright assignment system			
		Copyright licensing			
		Copyright term			
		Copyright injunctions			
		Copyright damages			
		the level of criminal punishment for copyright infringement			
		Membership of international copyright law treaties			
		Any other matters on copyright (pleased fill in:)			
	IP related area	The invalidity of grant-back clauses (assignment-back,a exclusive or non-exclusive grant-backs,reciprocity grant-back)			
		The invalidity of NAP clauses			
		A transparent and predictable tax system on transfer pricing			
		Licensor's warranty obligation			
		Rates control for licence fee			
		Export Controls on technology transfer			
		State of headhunting and an employee's duty to refrain from competition			
		Objects of licence contracts			
		Control to licence contracts			
		Contractor registration system			
		Establishment and enforcement of a system similar to Bayh-Dole			
		Import and export control for counterfeiting goods (Injunctions)			
		Technology know-how protection system and the level of protection			
		Trade secret protection system and the level of protection(not including technology know-how)			
		Any other matters on IP related issues (pleased fill in:)			

(4) To what extent do IP sectors in your parent company involve in the decision-making of overseas expansion?

1. Highly involve　　2. Slightly involve　　3. Not involve

(5) Please describe specifically the problems concerning intellectual properties which you are facing after overseas expansion, including the name of the country.

Thank you for your cooperation!

Appendix 2:

Methods for Constructing the Survey Questionnaire

To specify the detailed aspects of intellectual property rights (IPR) as factors companies take into account when deciding to establish a foreign subsidiary, we use the well-known indexes of patent rights, such as Ginarte-Park index (1997), Park-Wagh index (2002), and Park-Lippoldt index (2005) (the Park Indices). The Park Indices, however, are meant evaluate the protection of patent rights. In this survey, we used other indices to account for the relationship between foreign direct investment (FDI) and the intellectual property (IP) system.

The Park Indices reveal the level of patent protection. The indices comprise five criteria: (i) coverage, (ii) duration of protection, (iii) enforcement, (iv) membership of international treaties, and (v) restrictions on patent rights. Compared with the Park Indices, the characteristics of our survey's indices are mainly as follows:

(1) To capture the influence of IPR systems on the decision to expand, we took account of several indices to determine expansion by multinational companies (MNCs) to ASEAN countries.
(2) Our survey is not restricted to patent; we include other IPR, e.g., trademark, design right, utility model, and copyright.
(3) To capture the detailed problems regarding IPR in ASEAN countries, our survey used the more detailed indices in the questionnaire survey sheet.

Compared with the Park Indices, ours are arranged by IP categories as follows:

1. Indices related to the creation, modification, and allocation of IPR (patent, trademark, design patent, utility model, copyright)

(1) General matters: (i) IPR prosecution timeline, (ii) the related costs for obtaining IPR, (iii) IPR maintenance fee, (iv) correction of IPR, (v) IPR invalidation proceedings, and (vi) co-ownership of IPR

(2) Specified index of patent: (i) home country application system, (ii) secret patent system, (iii) exercises on compulsory licensing rights

(3) Specified index of trademark: types of trademark, rescission of trademark

registration based on non-use

(4) Specified index of design patent: partial design system ('design patent protection for a part of products' in the survey sheet)

(5) Specified index of utility model: utility model technical opinion

(6) Specified index of copyright: (i) employee works, (ii) copyright registration, (iii) scope of neighbouring rights protection

(7) IP-related area: establishment and enforcement of a system similar to Bayh-Dole

2. Indexes related to the protection of IPR

(1) General matters: (i) IPR term, (ii) IPR injunctions, (iii) IPR damage, (iv) level of criminal punishment for copyright infringement;

(2) Specified index of IP-related area: (i) import and export control on counterfeit goods (injunctions), (ii) technology know-how protection system and the level of protection, (iii) trade secret protection system and the level of protection (not including technology know-how).

3. Indexes related to effective utilisation of IPR

(1) General matters: (i) IPR assignment system, (ii) IPR licensing system, (iii) co-ownership of IPR

(2) Specified index of IP-related area: (i) IPR licensing condition: licensor's warranty obligation, rates control for license fee, objects of license contracts, control of license contracts, contractor registration system, the invalidity of grant-back clauses (assignment-back, exclusive or non-exclusive grant-backs, reciprocity), invalidity of NAP clauses; (ii) a transparent and predictable tax system on transfer pricing; (iii) export controls on technology transfer.

4. Others

(1) State of headhunting and an employee's duty to refrain from competition

(2) Membership of international IPR law treaties

Table A.1 shows a simple comparison between the Park Indices and the index used in this survey. It simply proves that there is no related index related to effective utilisation of IPR in the Park Indices.

Table A. 1: Comparison between Ginarte-Park Index and Index of this Survey

Park Indices	This Survey's Index
i) Coverage	1. The creation, modification, and allocation of IPR
ii) Duration of protection	2. The protection of IPR
iii) Enforcement	2. The protection of IPR
iv) Membership of international treaties	4. Others
v) Restrictions on patent rights	

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