

Part II

Overall Analysis

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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)

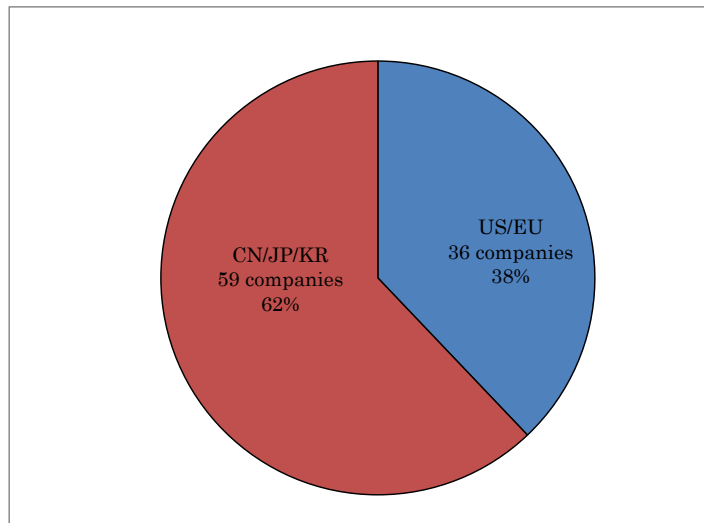


Figure 3.2 and Table 3.1 show the distribution of the subsidiaries over ASEAN countries, though the host countries of three subsidiaries are missing. In total, 29 percent of target companies (27 companies) established their subsidiaries in Indonesia, 26 percent (24 companies) in Thailand, 19 percent (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)

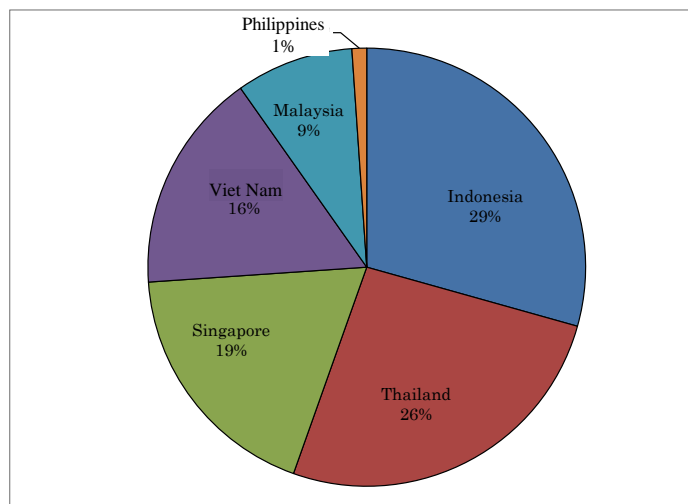


Table 3.1: Distribution of Local Subsidiaries by Host and Home Countries

	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)

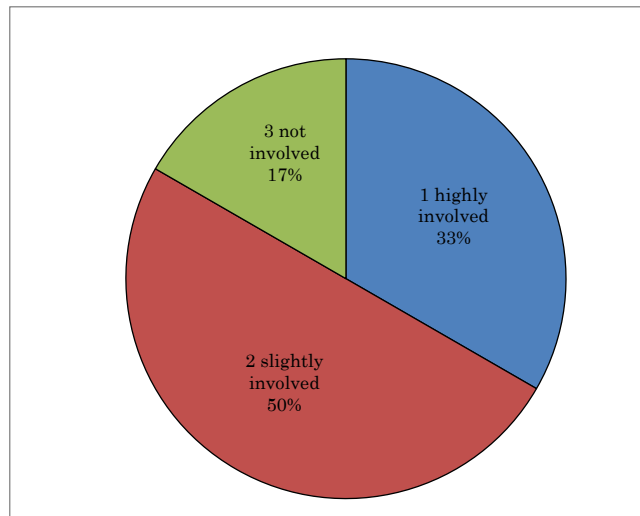
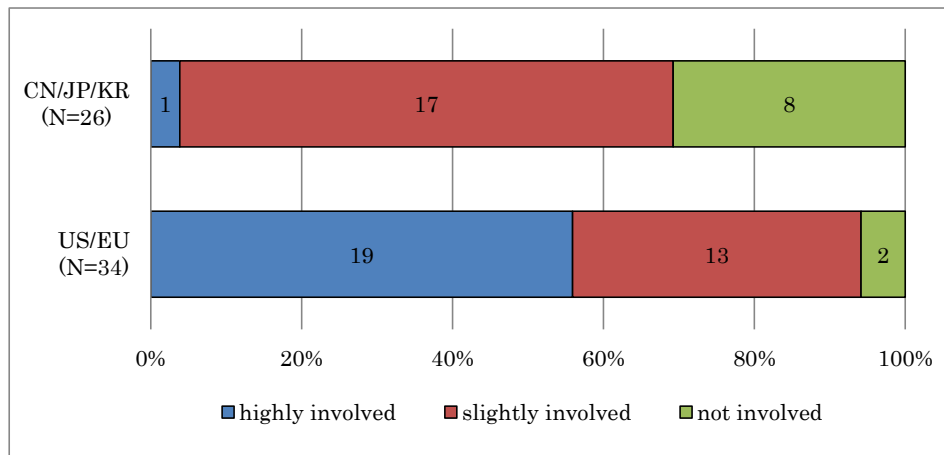


Figure 3.4: Degree of Involvement of IP Department by Home Country



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 expansion¹.

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)

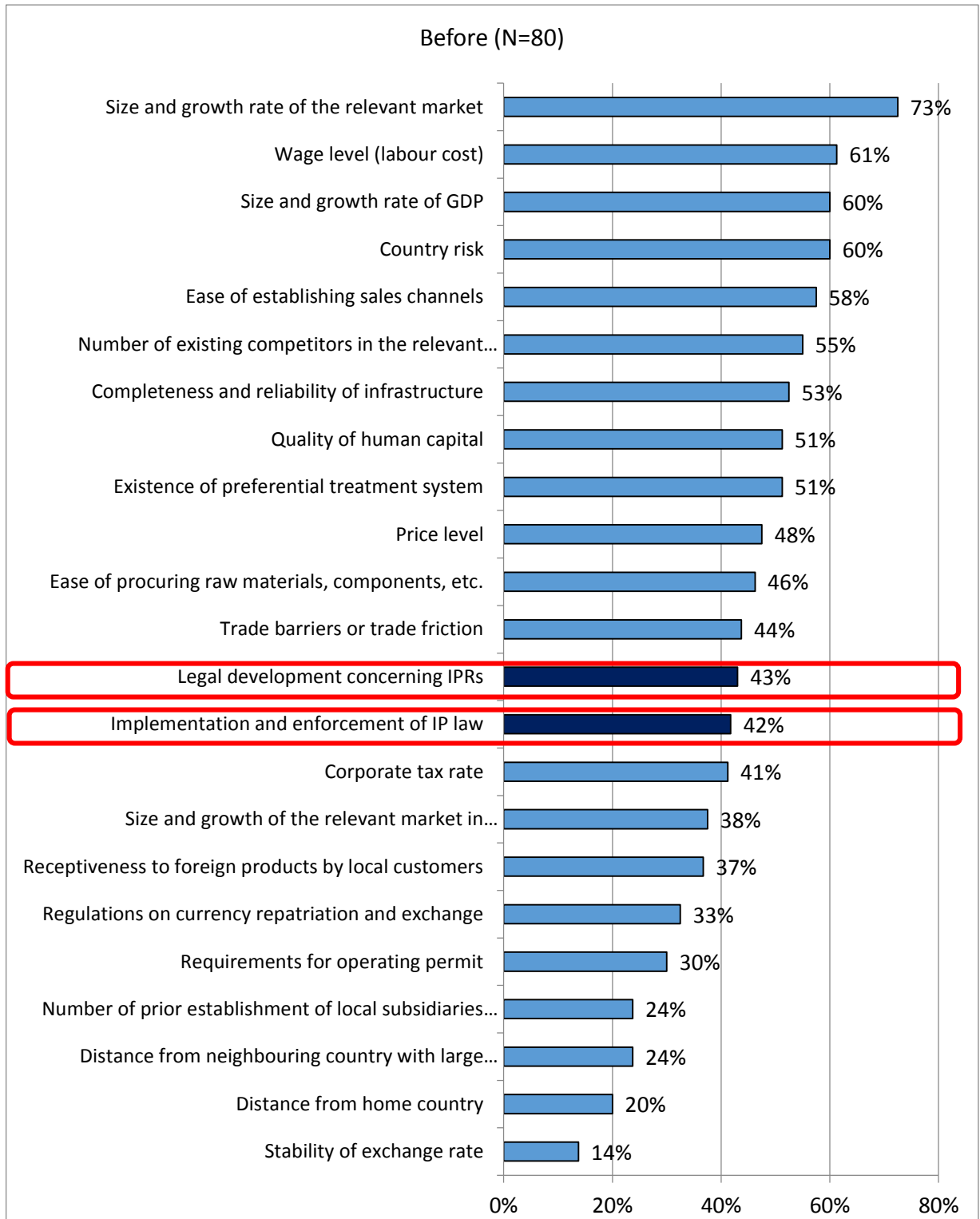
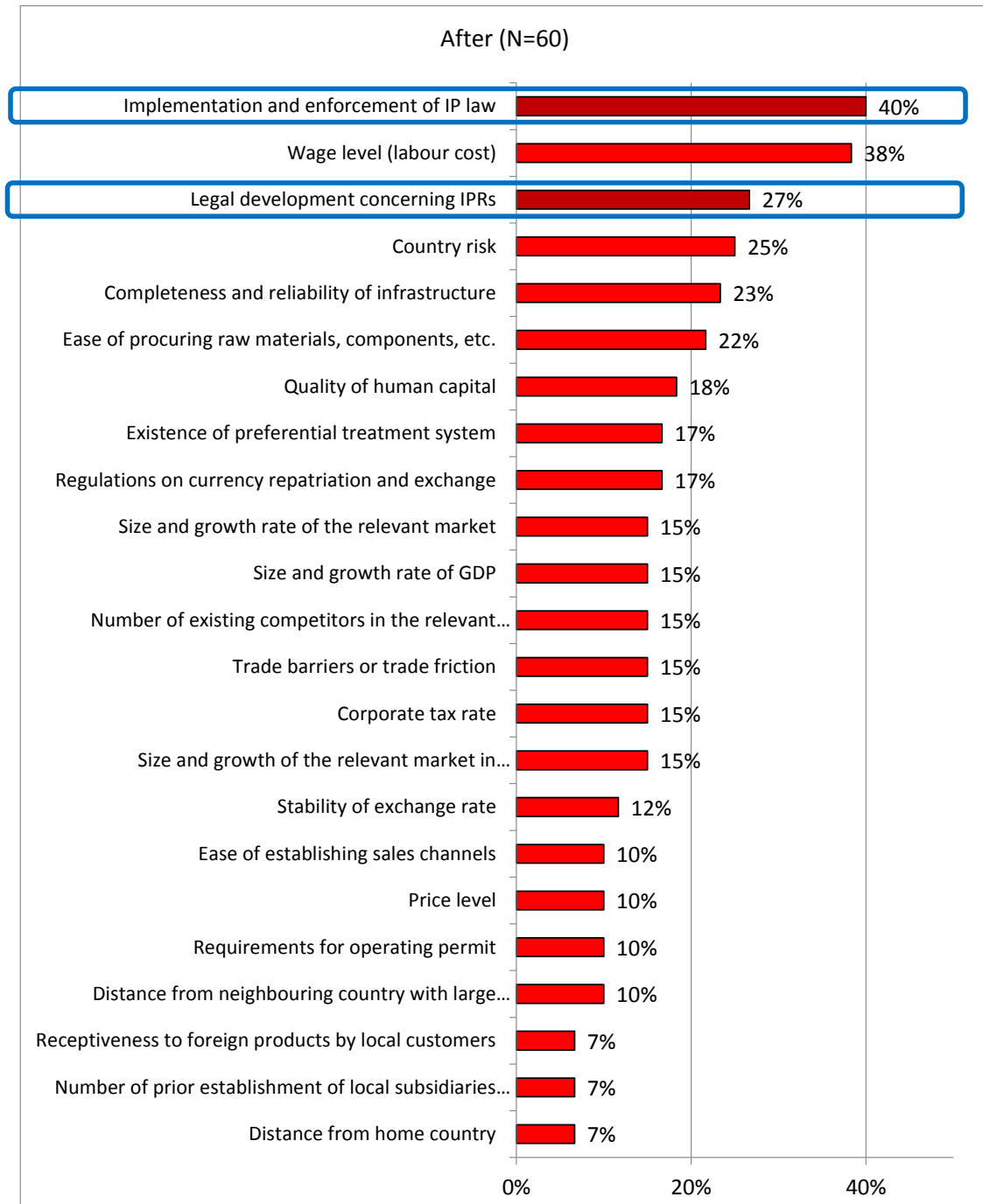


Figure 3.6: Problems Faced After Establishing Local Subsidiaries (N=60)



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

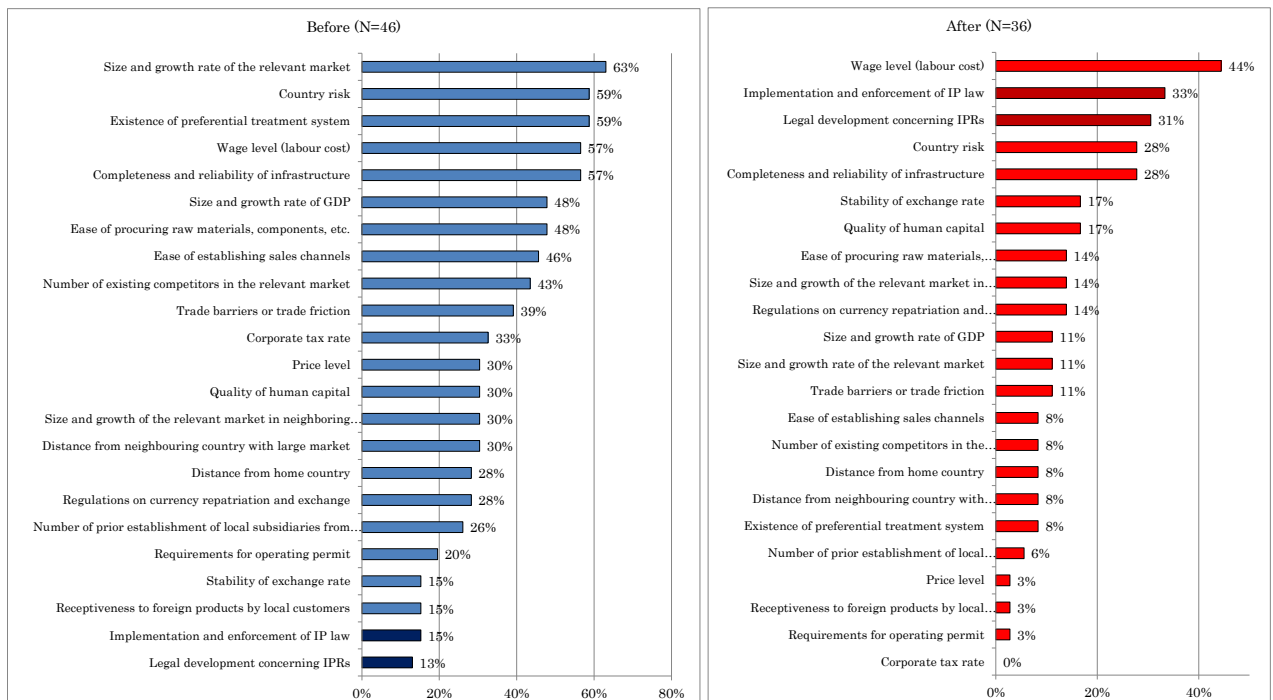
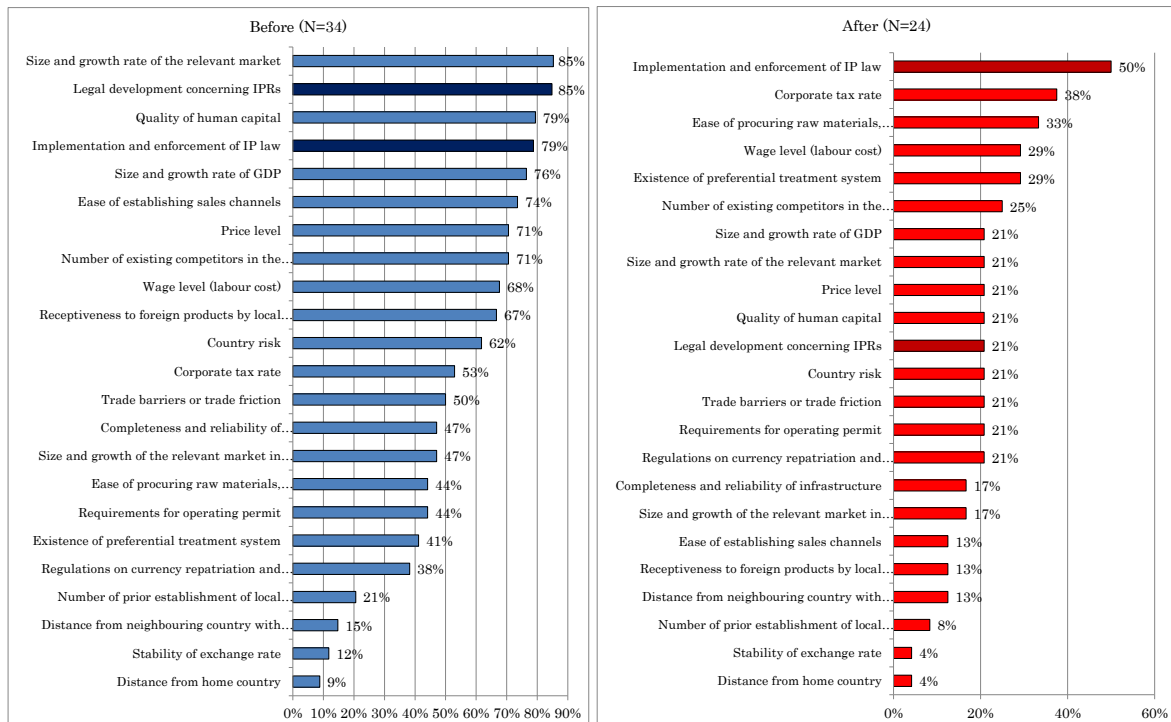


Figure 3.8: Issues Faced by EU/US Companies Before and After Expansion



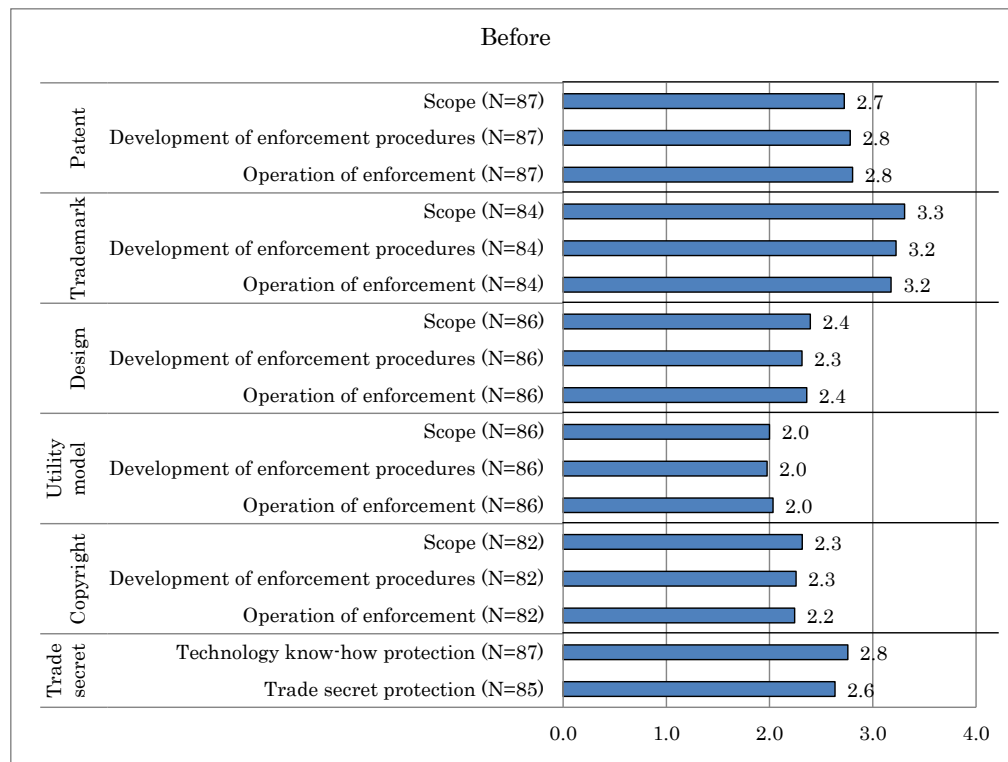
4. IP-Related Factors Considered

The survey asked respondents how significant their firms considered the following IP-related factors to be before and after expansion on a five-point scale²: (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).

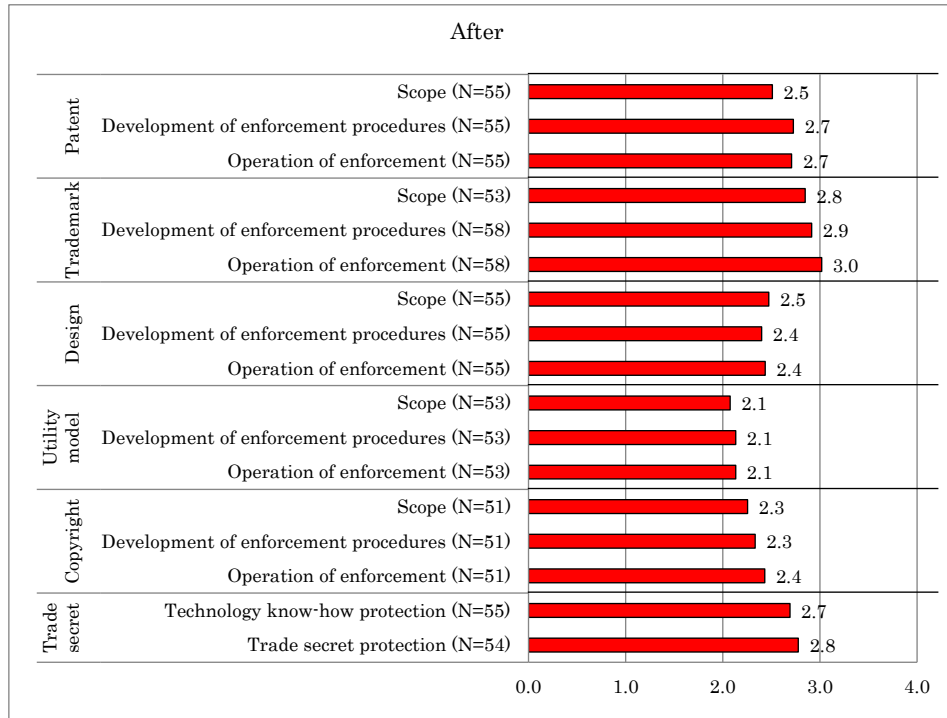
² These questions were intended to be answered mainly by persons belonging to the IP divisions.

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

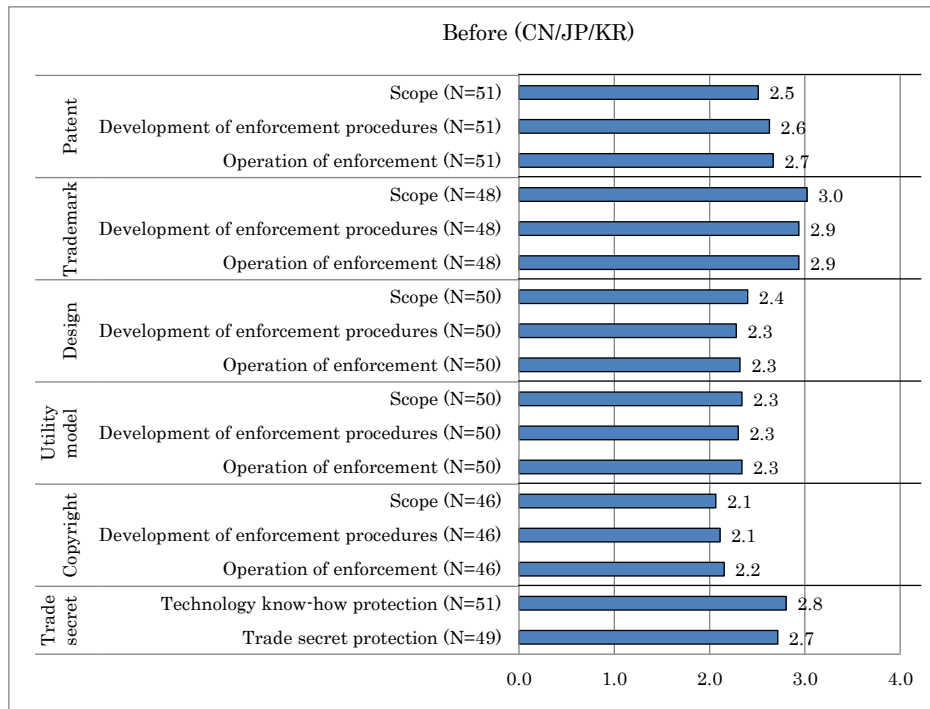
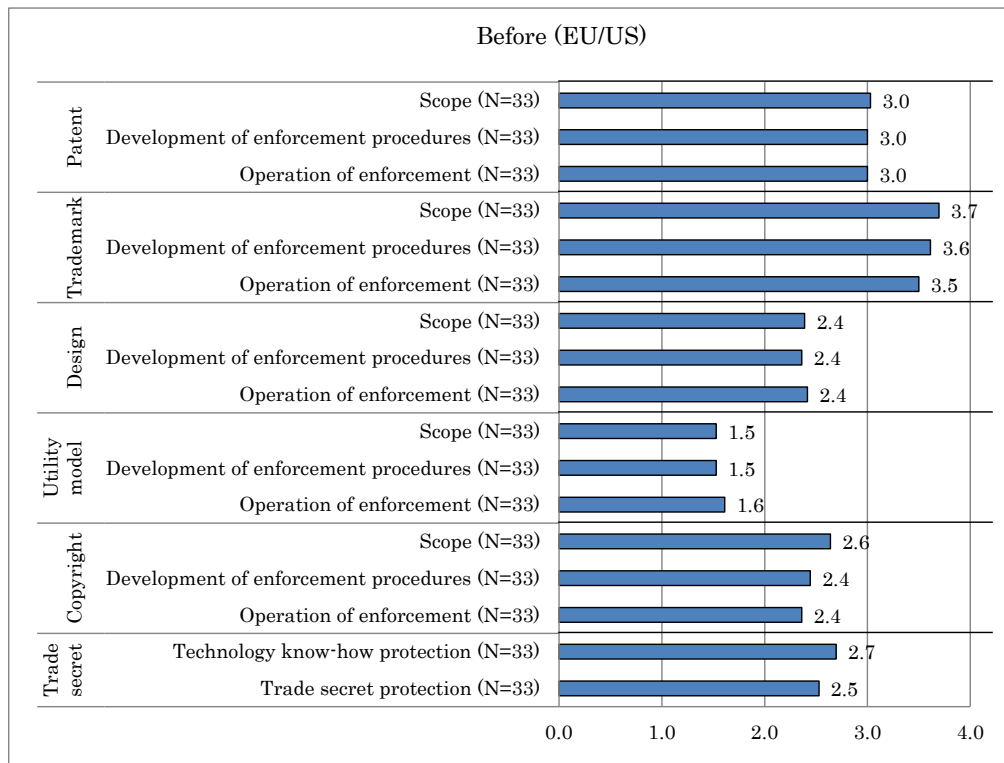
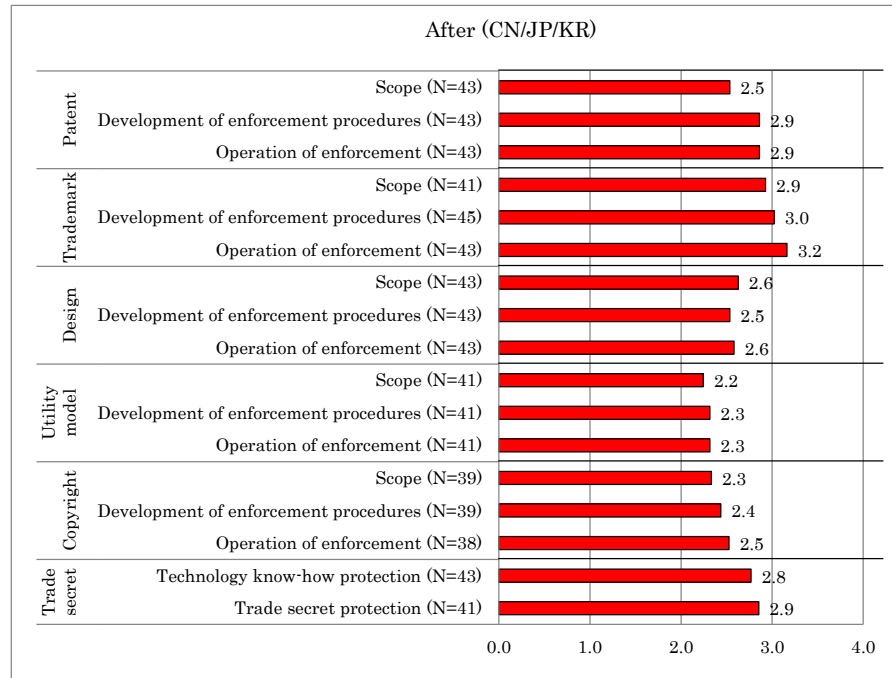


Figure 3.12: Considerations of EU/US Firms of the IP System Before Establishing Subsidiaries

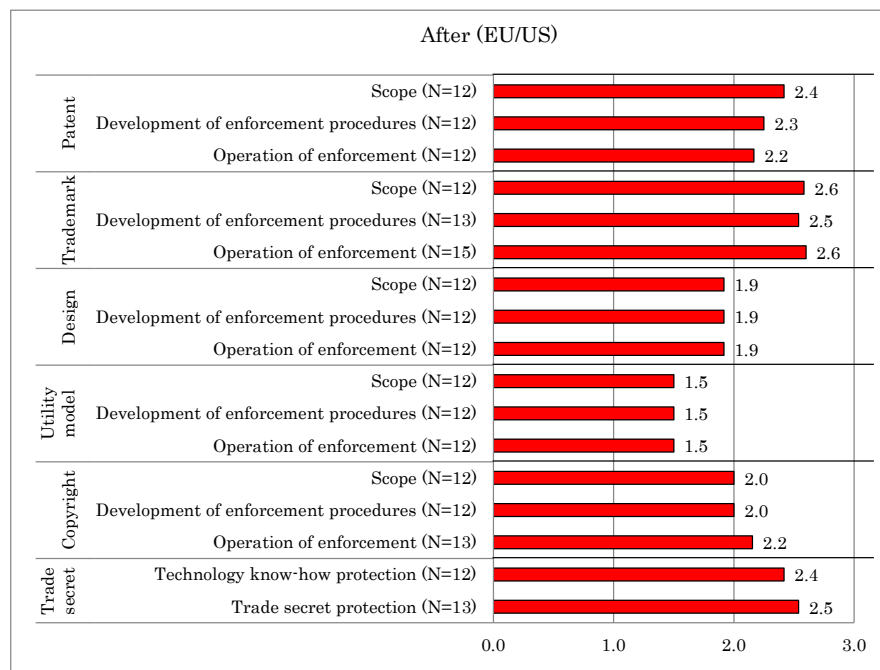


Figures 3.13 and 3.14 show the average scores after establishing subsidiaries for CN/JP/KR firms and EU/US firms. These figures show similar trends for factors considered ex-ante, except that for both the EU/US and CN/JP/KR firms, trade secret–related issues were the second most important factor after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

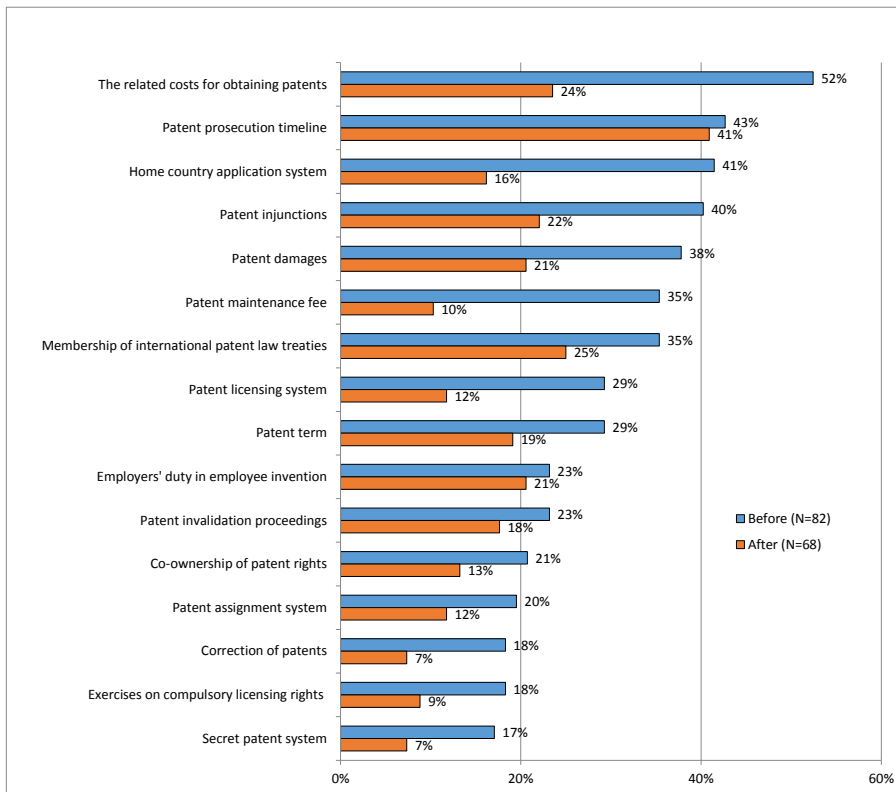


Figure 3.16: Specific Matters Concerning Trademark

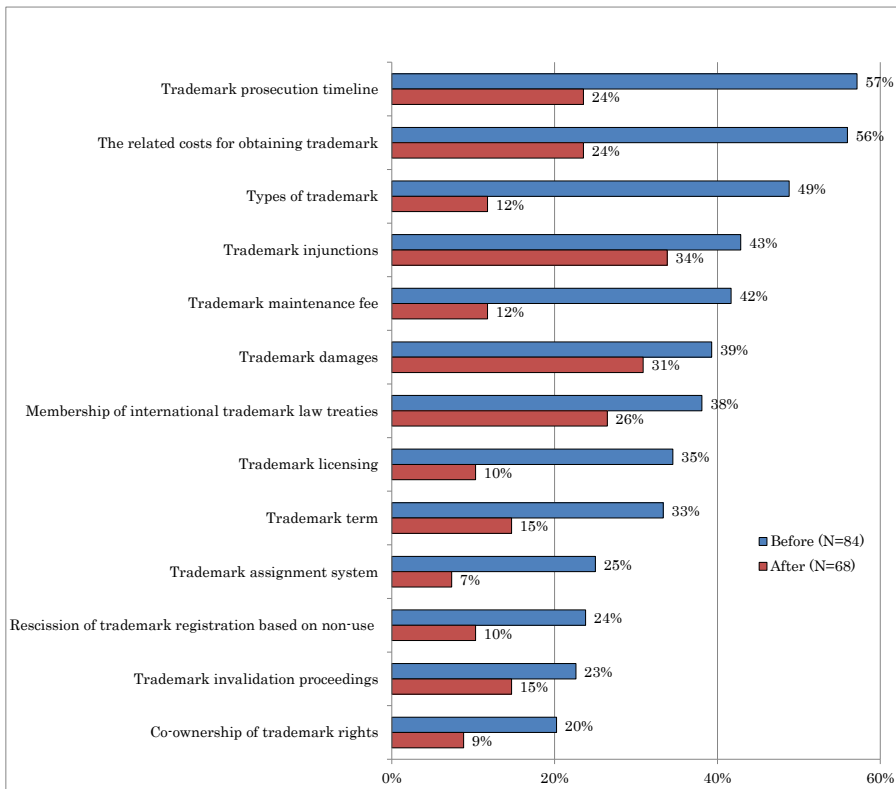


Figure 3.17: Specific Matters Concerning Design Patent

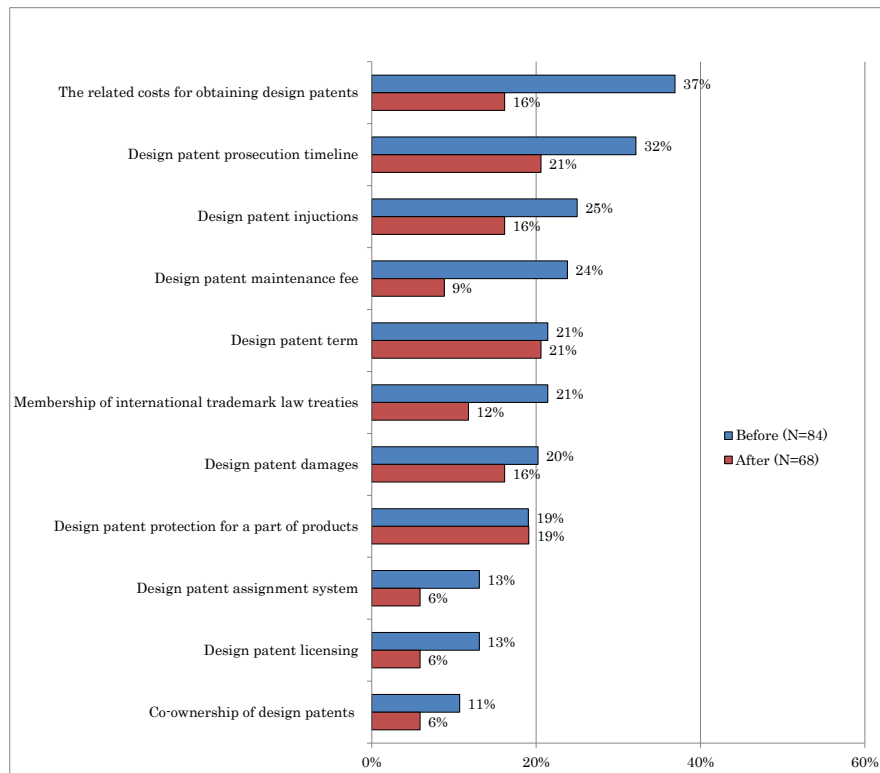


Figure 3.18: Specific Matters Concerning Utility Model Patent

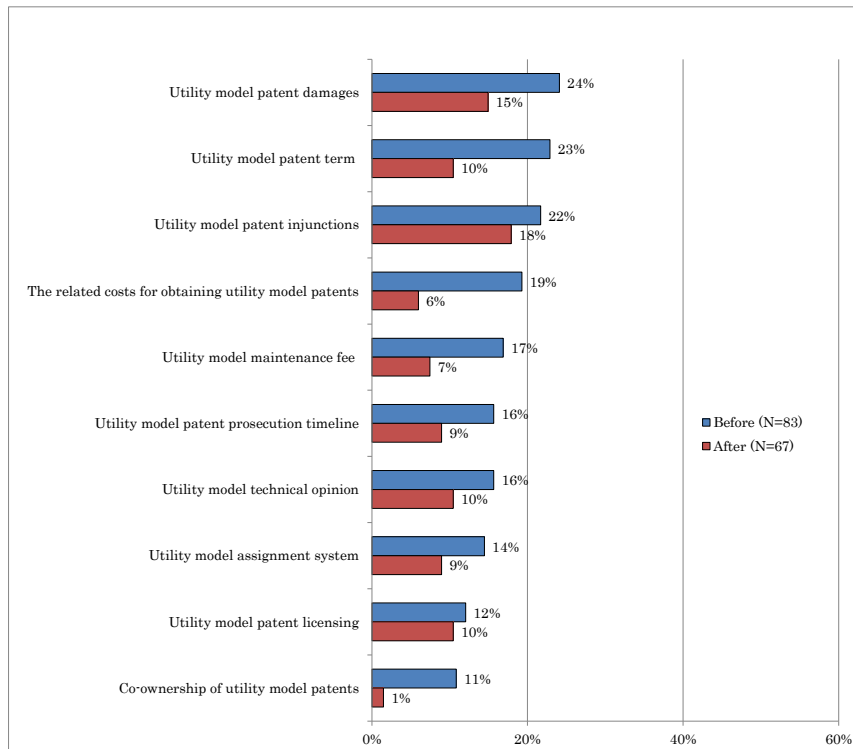


Figure 3.19: Specific Matters Concerning Copyright

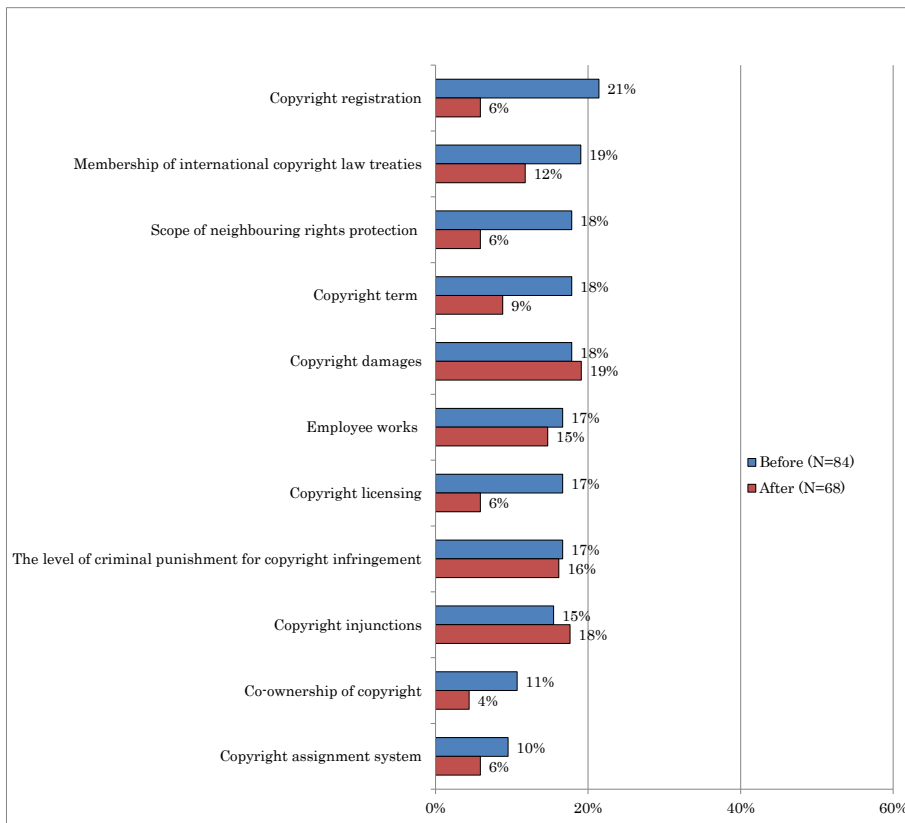
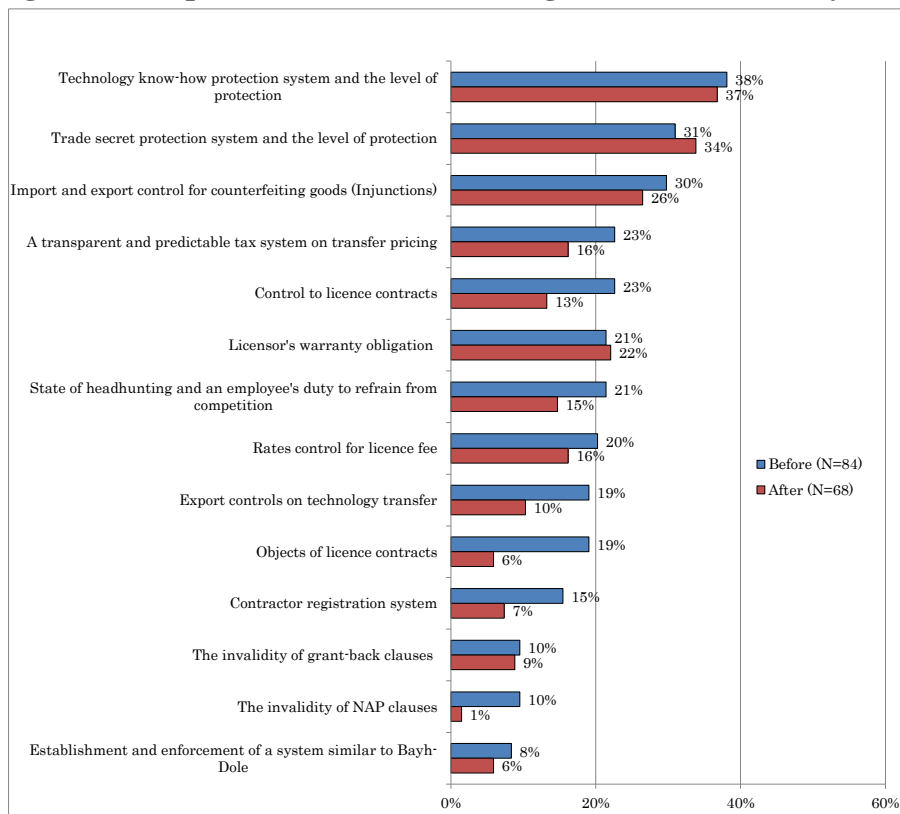


Figure 3.20: Specific Matters Concerning Other IP-Related Systems



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

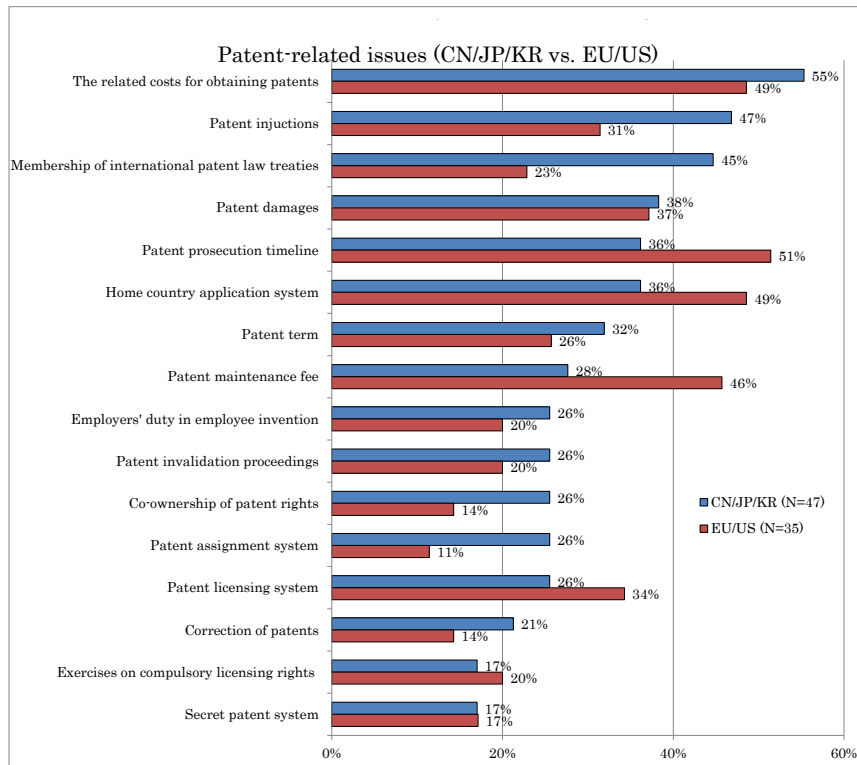


Figure 3.22: Comparison of Specific Matters Concerning Trademark

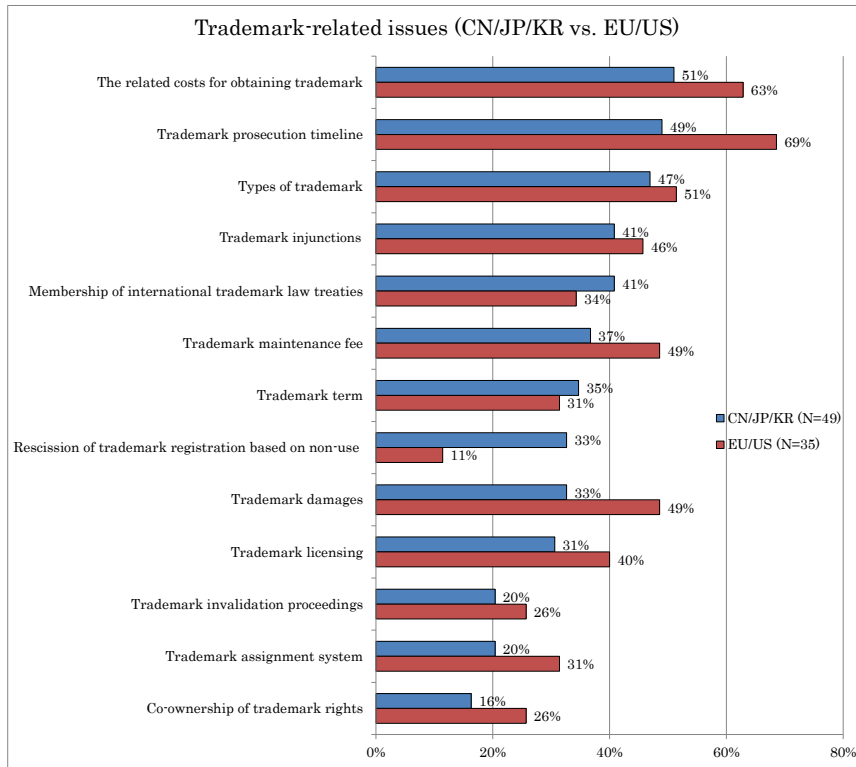
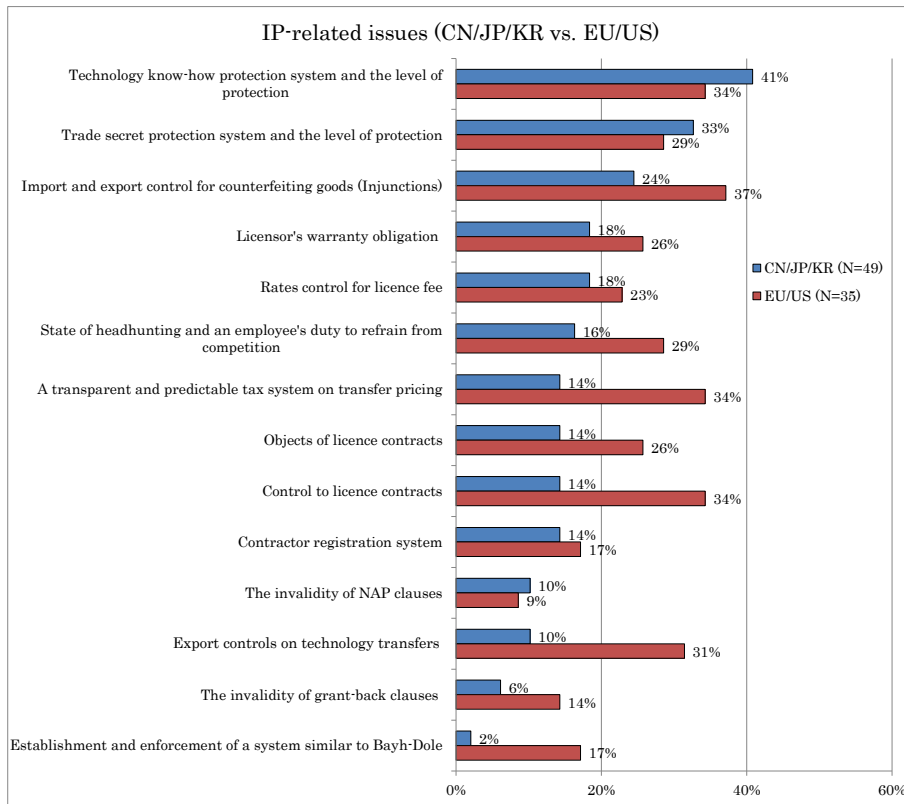


Figure 3.23: Comparison of Specific Matters Concerning Other IP-Related Systems



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

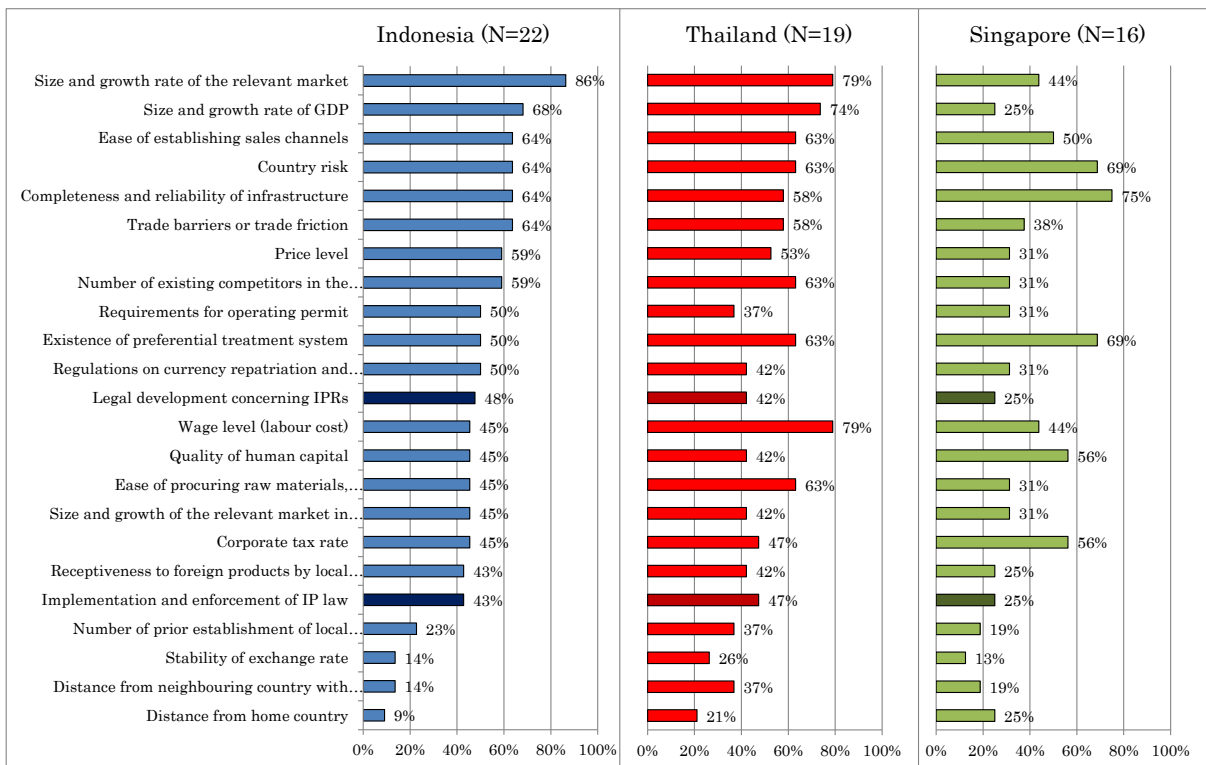
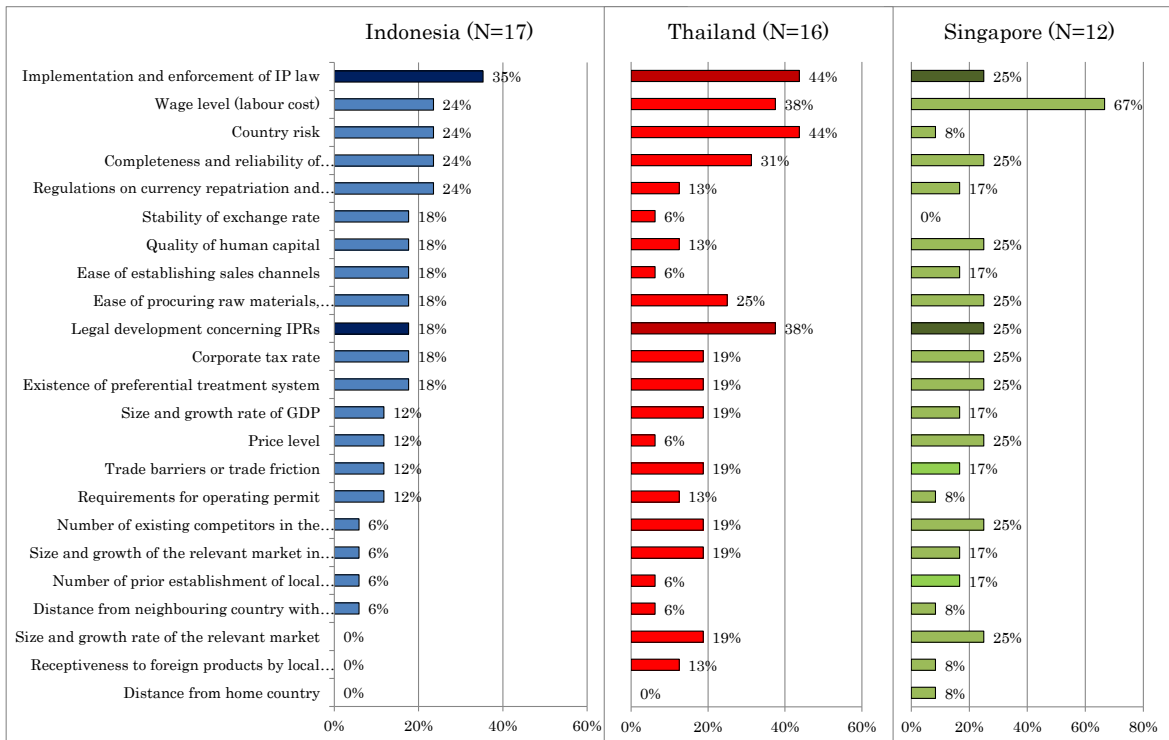


Figure 4.2 compares the share of the firms facing problems after expansion between three countries. In Indonesia and Thailand, the implementation and enforcement of IP law were the biggest problem. In Singapore too, quite a few firms faced IP-related issues, but the most important factor was the wage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

Figure 4.2: Problems Faced by Host Countries After Establishing Subsidiaries

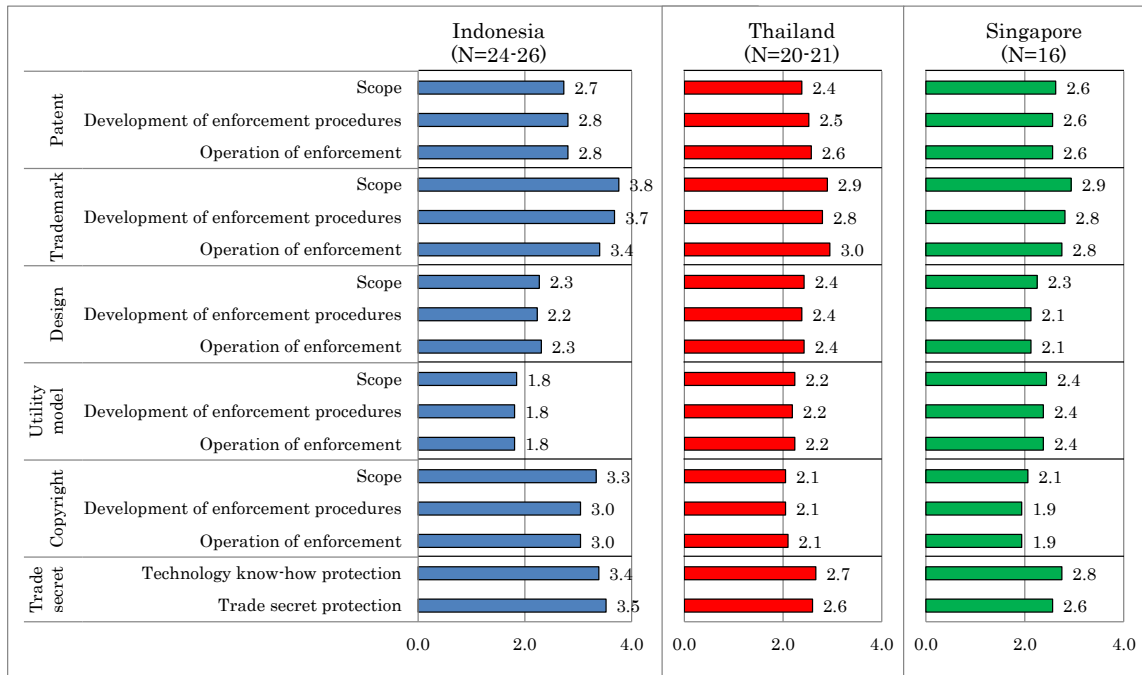


2. Differences in Consideration of the IP System by Host Countries

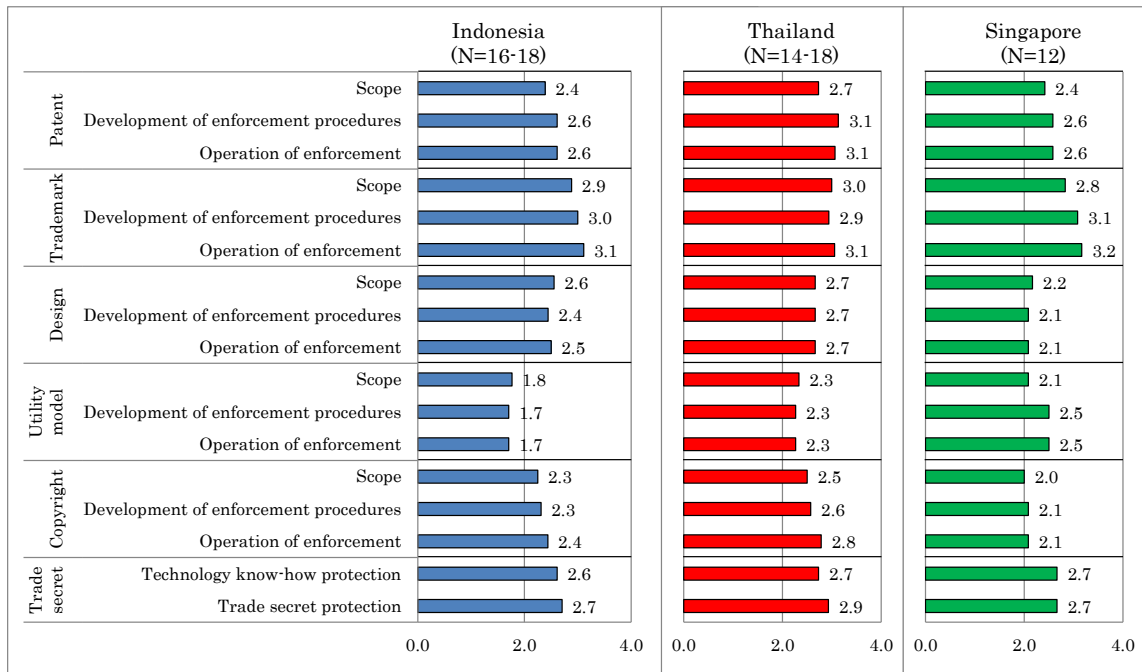
Figures 4.3 and 4.4 show the average scores for the importance attached to the IP system in Indonesia, Thailand, and Singapore before and after expansion, respectively. We can see similar scores before and after establishment.

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**

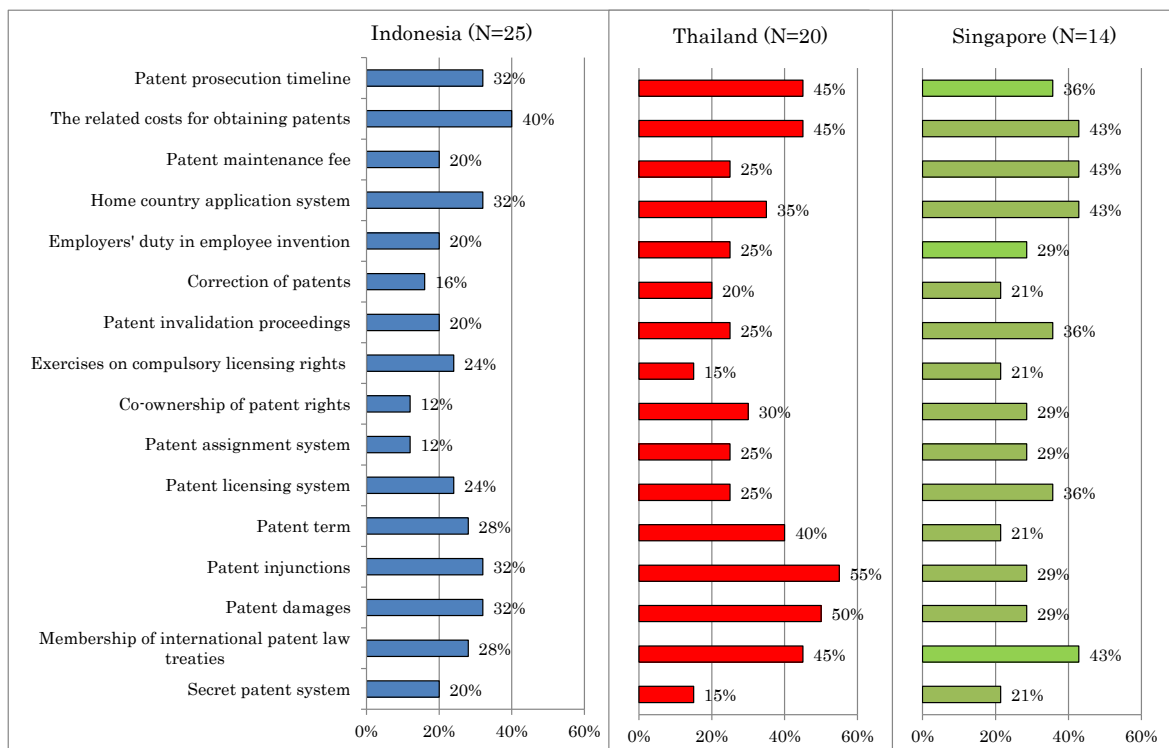


3. Differences in Consideration of Specific Matters by Host Countries

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, 4.6, and 4.7 show the shares of the firms considering each specific matter concerning patent, trademark, and IP-related system, respectively.

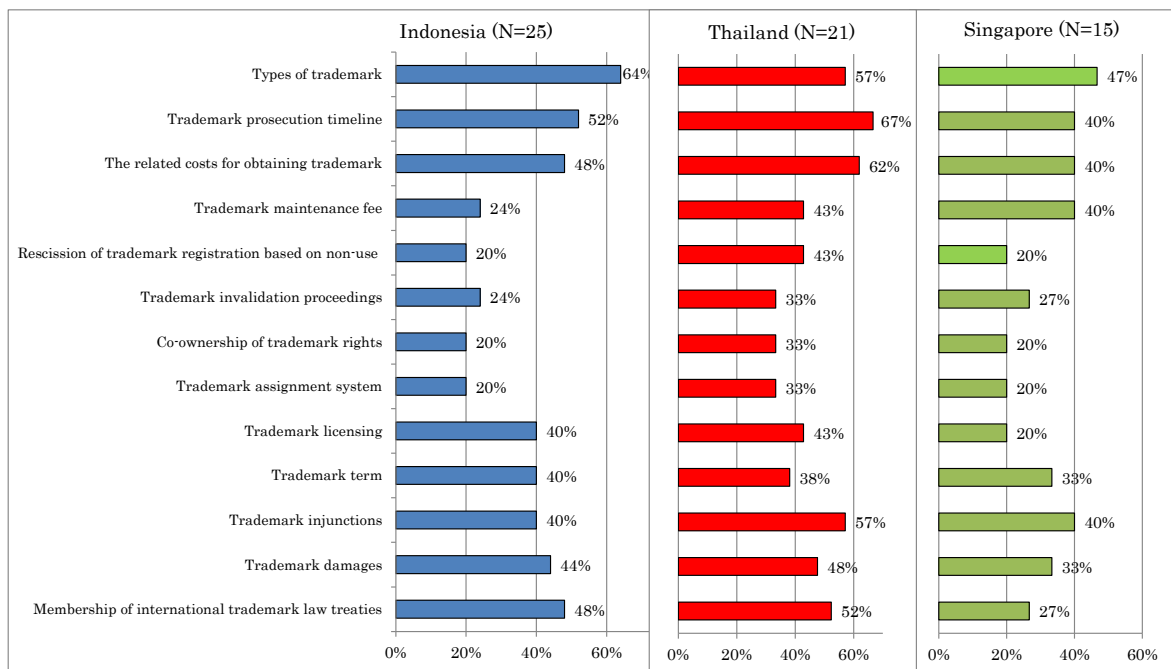
As for the patent-specific issues, we can see in Figure 4.5 that the cost for obtaining patents and the membership of international patent law were the common factors considered in each host country. In Indonesia and Thailand, patent injunctions and patent damages were of relatively high concern. Moreover,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

