Determinants of Regional Headquarters of MNCs in Asia

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1.1 Introduction

FDI plays an important role for the rapid development of Asian countries. There are two kinds of FDI: M&A and Greenfield Investment, and the latter one is the major entry mode into Asian economies. Greenfield Investment indicates the investment related to the establishment of new company abroad, and investor has to employ workers and build relationship with clients from the beginning. This mode is major in manufacturing sector which needs factories and mass workers. Therefore, Greenfield Investments are mostly seen in China and India, where there are large land area and lager amount of population. On the other hand, Singapore and Hong Kong where there are narrow land are and small population seem to receive M&A, which is suitable for knowledge intensive industry, but they attract large amount of Greenfield Investments as projects of receiving regional headquarters (RHQs) of multi-national companies (MNCs). When MNCs transfer their RHQs, they recognize three aspects as important determinants of the location: education, infrastructure and tax. Nowadays, economic activities are increasingly globalized, thus the necessity of RHQs which facilitate the management of subsidiary companies is increasing. Therefore, many countries are trying to promote these three aspects in order to receive benefit by attracting RHQs. In this study, we analyze how important these aspects are when attracting RHQs in Asia.

1.2 What's FDI?

FDI stands for Foreign Direct Investment, which is, "an investment made to acquire lasting interest in enterprises operating outside of the economy of the investor[1]". This investment refers to capital transfer triggered by cross border mergers and acquisitions, establishment of corporations, acquiring real estates and so forth. Moreover, the capital which transfers with FDI includes intangible capital such as patents and brands, and know-how about management of companies as well. Therefore, destination countries of FDI are expected to receive "spillover effects" from source countries. The definition of spillover effects is, "effects of economic activity or process upon those who are not directly involved in it.[2]" In case of FDI, it refers to technical development, job creation and GDP growth triggered by capital inflows. In order to receive a benefit, many companies are trying to attract FDI as much as possible. However, there are some demerits as well, such as that local firms are crowded out from the market by foreign companies, and that cultural frictions occur between local and foreign companies. Host countries are required to make efforts to avoid demerits while receiving merits as much as possible.

FDI is divided by two types according to the way investors invest to foreign countries. One is M&A, which stands for Mergers and Acquisitions. Purchasers can enter existed markets, and optimize seller's technology and resources directly. Therefore, rapid expansion of business can be realized. Although there are some risks that friction of cultures breaks out and that seller's liability off the book suddenly disclosed after merging, most of the companies are striving to purchase good-standing firms in order to expand their business efficiently. When purchaser determine which firms to buy, there needs to be a matured market around the firms proposed, thus M&A occurs mostly among developed countries.

Another one is Greenfield Investment. The difference between M&A is that investor establishes a new firm abroad. They obtain labors, facilities and customers all by themselves. As a merit, investors can keep their firms and labors totally under their control. On the other hand, there are some demerits that it takes time to start business, and that it is difficult to make inroads into competitive foreign market. This style is appropriate especially when investors establish new factory which needs a lot of cheap labors, thus Greenfield Investment occurs mostly in developing countries.

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[1] Balance of Payments Manual: Fifth Edition, International Monetary Fund
[2] http://www.allbusiness.com/glossaries/spillover/4958828-1.html

1.3   FDI trend: the whole world

After overcoming the economic downturn precipitated by Lehman Brothers bankruptcy in 2008, the number of FDI stock has been increasing gradually. Many researchers have proved that FDI has positive correlation with economic growth, thus many countries are striving to attract FDI.

Figure 1: FDI inflows in the world

(USD billions)
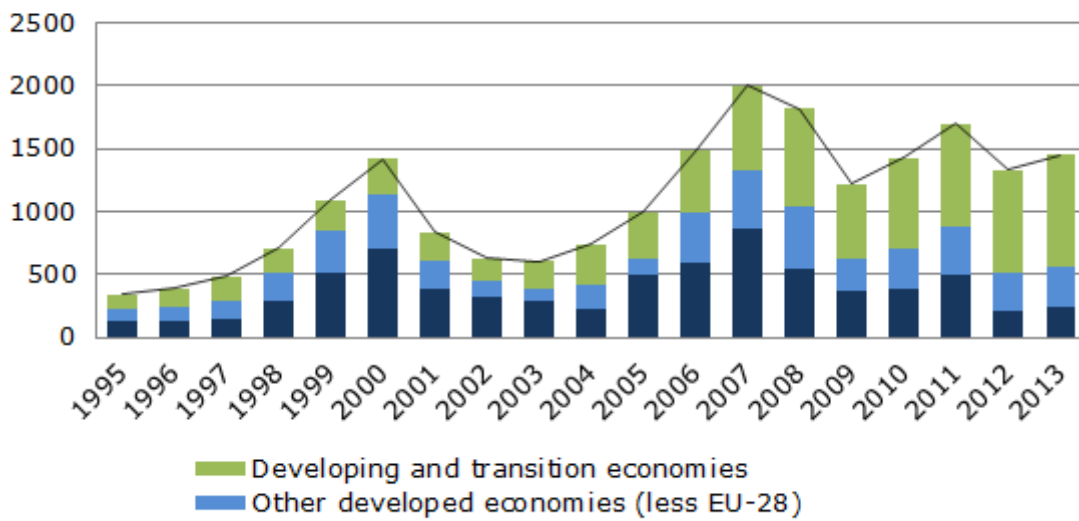
Source: European Commission

According to figure 1, though FDI stock drops when economic crisis happen, otherwise it increases steadily. Also, according to figure 2 and 3, you can see that this FDI growth is led by developed countries in Europe and North America, and that a lot of FDIs are casted into developing countries such as Asia. In a word, investors are especially paying attention to Asia, where growth rate is highest in the world.

Figure 2: Top source economies

(USD billions)

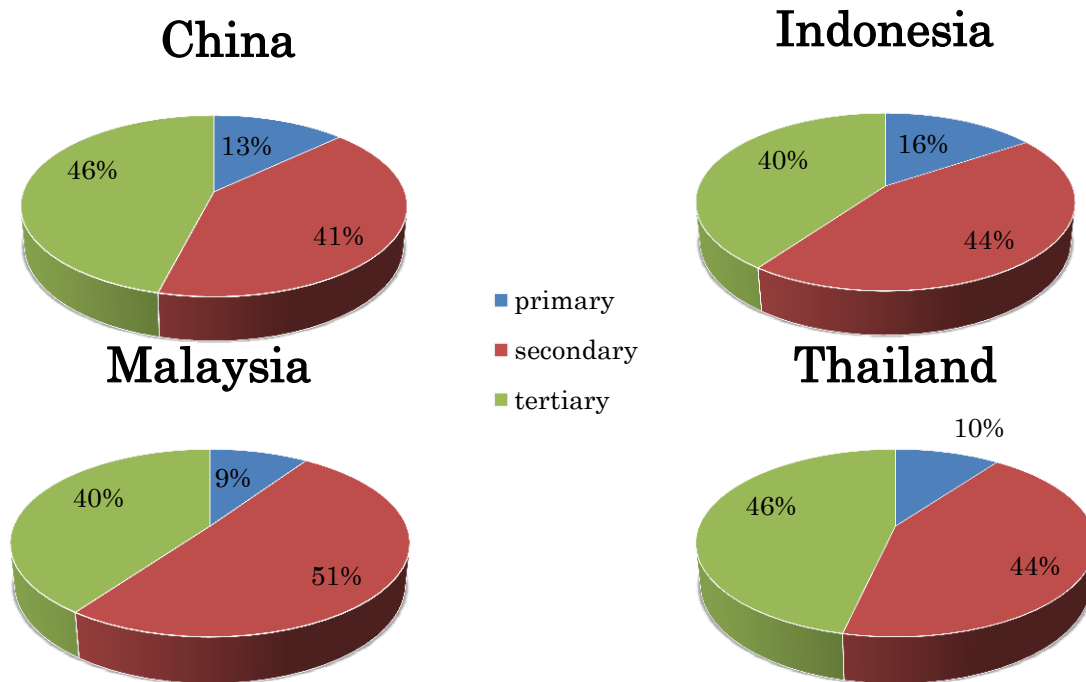Figure 3: Top host economies

(USD billions)
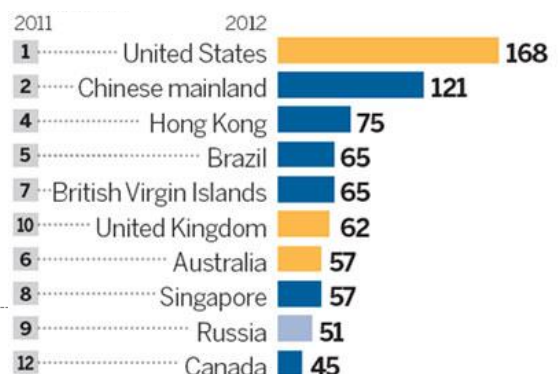
Source: China Daily ASIA

1.4   FDI trend: Asia – Labor intensive industrialized countries

From the late 90's, when globalization had begun developing rapidly, Asia has been seen as "The workshop of the world", and most of developed countries had transferred their production bases into Asia. That's because Asian countries such as China and Vietnam had plentiful cheap labors. While absorbing developed countries' manufacturing industry, Asian countries have come to play different roles. East Asian countries such as Japan and Korea have flourished as high-industrialized countries, and Southeast Asian countries such as Malaysia and Vietnam have undertaken a role to mass-produce intermediate goods, and South Asian countries such as India and Bangladesh have established a status of labor-intensive industrialized countries which assemble parts of machines[3]. Asian countries have established this division of labor system, and made secondary industry develop rapidly. According to figure 4, among Asian countries, secondary industry has accounted for almost half of the pie, followed by tertiary industry.

Figure 4: Industrial Structure of Asian countries

China

13%
41%
46%

Indonesia

16%
44%
40%

■ primary
■ secondary
■ tertiary

Malaysia

9%
51%
40%

Thailand

10%
44%
46%

Source: World Development Indicators, World Bank

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[3] アジア力 −世界経済の牽引車の光と影　(後藤, 2011)

A number of factories owned by foreign companies are inflowing to Asia, thus the number of Greenfield Investment in Asia is increasing. According to figure 5 which indicates the number of Greenfield Investment project hosted in Asian countries during 2009 to 2013, the number of Greenfield Investment surpasses that of M&A in all countries. Therefore, it can be said that Greenfield Investment is the most appropriate way to invest in Asia, where secondary industry has highly developed.

Figure 5: The ratio of M&A and Greenfield Investment in Asia
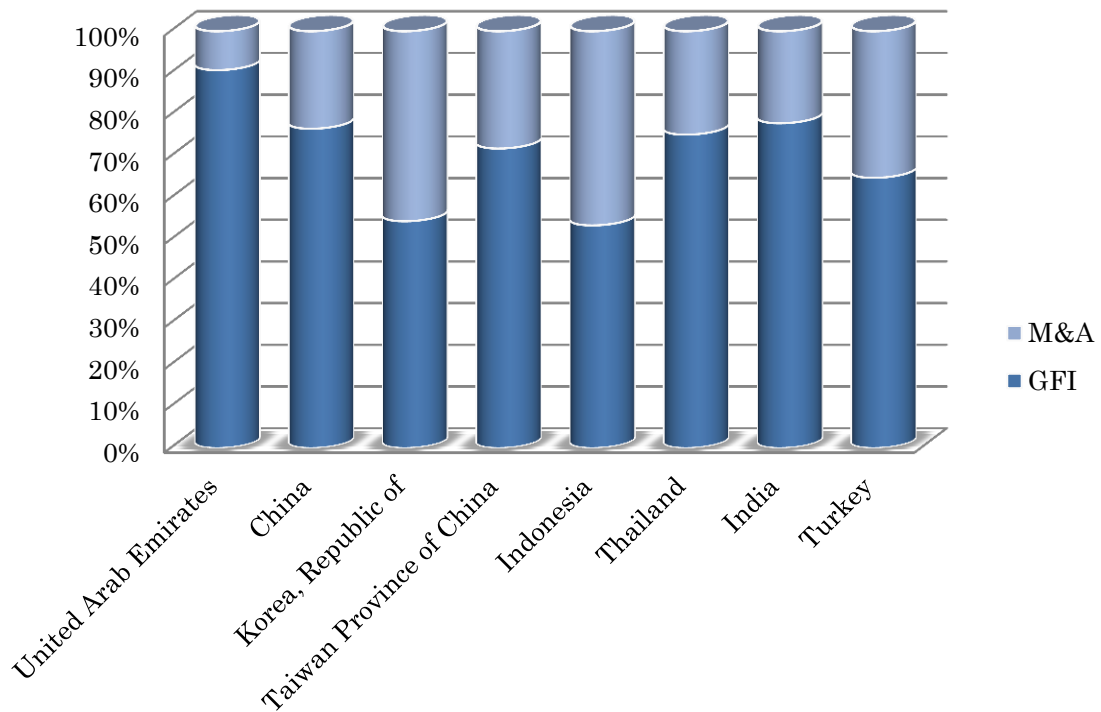
Source: UNCTAD stats, UNCTAD

1.5   FDI trend: Asia – knowledge intensive industrialized countries

As explained before, Greenfield Investment is the major type of investment in Asia where manufacturing industry is developed. However, there are some countries where establishing factories does not fit, such as, Singapore and Hong Kong and so forth. Common factors among these countries are that their land areas are not large enough to build many factories and that their populations are small, and that labor costs there are expensive. For such countries where knowledge intensive industries are more developed, M&A is more suitable such as like European countries. However, according to figure 6, you can see that Greenfield Investment still accounts for the vast majority of FDI inflows to them.

Figure 6: The ratio of M&A and Greenfield Investment
in Hong Kong and Singapore
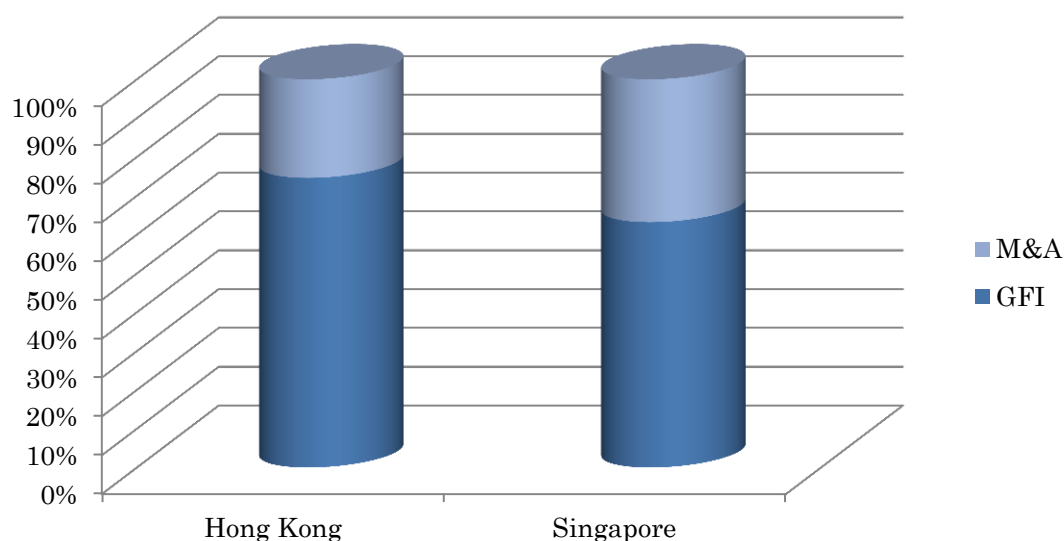
Source: UNCTAD stats, UNCTAD

Also, as you can see in figure 7, these countries are depended on tertiary industries other than primary or secondary industries, thus most of Greenfield Investment projects hosted there are related to knowledge intensive industry. In that case, M&A tends to be selected as an entry mode. As for tertiary industry, investors are able to receive benefits efficiently and rapidly by conducting M&A rather than establishing new firms. Then why investors select Greenfield Investment to enter these countries? That is because they are willing to establish "regional headquarters".

Figure 7: Industrial Structure of Hong Kong and Singapore
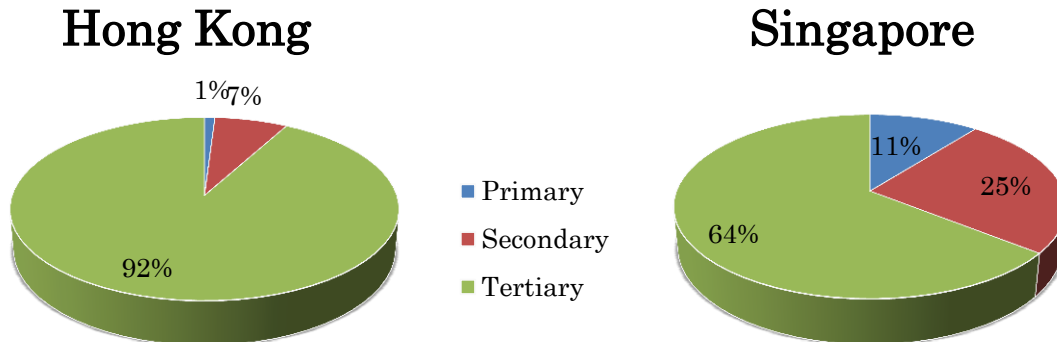
Source: World Development Indicators, World Bank

1.6   What's RHQs?

RHQ (Regional Headquarter) is an institution established to integrate decision-making of its subsidiary companies existing in the region[4]. Parent companies can promote efficiency of managing their subsidiary companies by concentrating their opinions at RHQs. Moreover, they can cut various costs by providing shared-services among regions and by integrating their tax strategies and so forth[5]. Parent companies impose various roles on RHQs. Most of them undertake a role of management, but there are some RHQs which undertake the role of R&D, marketing and logistics and so forth. Parent companies tend to place their RHQs in a country where their RHQs' roles are fully displayed. When we look at host countries where RHQs are established, we notice that they fully enjoy the merits of accepting RHQs of MNCs. For example, jobs are created for highly educated labors, and large amount of business information come to inflow. The expected spillover effects of attracting RHQs might not be compared with those expected when attracting ordinary firms[6]. Therefore, many countries are making efforts to attract RHQs of MNCs.

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[4] http://www.dir.co.jp/consulting/insight/management/20130807_007520.html
[5] http://ss-smb.nikkei.co.jp/column/15/04.html
Shared-service is a strategy to facilitate managements by concentrating subsidiary companies' sharable works in headquarters.
[6] 日本のアジア拠点化総合戦略〜「企業が国を選ぶ時代」の立地競争力強化〜 (経済産業省, 2010)

1.7　　　Attracting RHQs in Asia

As we explained above, host countries can receive large merits by accepting RHQs and thus they are making efforts to attract them. We introduce some example. Singapore, where corporate tax rate is lower than other Asian countries, is trying to be more attractive for RHQs by lowering its corporate tax rate. Singapore Economic Development Board enacted Regional Headquarters Award in 2003. When a subsidiary company of MNCs are recognized as a RHQ by Singapore government, it can receive 2% deduction of corporate tax rate for maximum 5 years. In other words, tax rate imposed on RHQs are curtailed to be 15%. This unrivalled low tax rate has accelerated the inflow of RHQs into Singapore. As for Thailand whose ordinary corporate tax rate is 20%, The Thai Board of Investment is striving to attract RHQs by enacting Regional Operating Headquarters under the legislation in 2010. When RHQs met the condition which is imposed by the government, corporate taxation on them is totally exempted for maximum 10 years. The conditions are to be recognized as a RHQ by the government, and to establish more than three subsidiary companies out of Thailand in 5 years. The conditions are stricter than that of Singapore, but they might not be any deterrence if RHQs can enjoy 0% taxation. Also, in 2012, Malaysia Investment Development Authority has enacted the similar measures with Thailand. If companies are recognized as RHQs by the government, corporate tax rate imposed on them will be 0% for maximum 10 years[7].

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[7] アジア地域統括会社に求められるリスク管理（東京海上日動,2014）

2.1   Previous works

As we explained above, measures conducted to attract RHQs in Asia are related to corporate tax rates. It is obvious that corporate tax is one of the most important aspects when parent companies determine the location of their RHQs, because the tax rate imposed on RHQs is applied to all the subsidiary companies RHQs manage[8]. However, Ministry of Economy, Trade and Industry (METI) (2010) states that tax rate is not the only measure to attract RHQs. They state that there are three important aspects which attract RHQs of MNCs: tax rate, education and infrastructure.

The reason why METI states that tax rate is important is the same as what we explained. In other words, because the host countries of RHQs' corporate tax rates are applied to all the incomes gained in the region where RHQs manage, parent companies can cut a large amount of tax expenses.

Also, the reason why METI sees education is important is that RHQs seek for highly educated human resources who are able to deal with intercultural managements. In other words, those who are polyglots and familiar with foreign cultures are required. Therefore, countries with higher rate of highly educated people seem to be chosen as the destination of RHQ establishments.

Also, because the most of RHQs undertake the role to manage all the subsidiary companies in the region, there needs to be sufficient transport infrastructures to communicate with each other. Such infrastructures can contribute to RHQs which undertake the role of logistics or sales as well.

For these reasons, METI states that tax rate, education and infrastructures are three important aspects when attracting RHQs of MNCs. However, these speculations are totally qualitative. In our study, we analyze METI's theory quantitatively and clarify whether it is correct or not.

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[8] http://ss-smb.nikkei.co.jp/column/15/04.html

2.2   Model

In this section, we develop an empirical model to analyze the determinants of RHQs in Asia. The following model is our equation to employ analysis in this paper.

$RHQ_{it} = \beta_0 + \beta_1 lnGDP_{it} + \beta_2 TAX_{it} + \beta_3 EDUT_{it} + \beta_4 EDUL_{it} + \beta_5 lnINFC_{it} + \beta_6 lnINFA_{it} + \beta_7 INFR_{it} + \varepsilon_{it}$

Where: (t) is the year, and (i) indicates host country of RHQs. The number of RHQs inflows to country (i) is placed at the left side as a dependent variable, mentioned as RHQ. As independent variables, we set GDP (Gross Domestic Product), TAX as corporate tax rate in country (i), EDUT as ratio of tertiary educated worker in country (i), EDUL as ratio of English speaker in country (i), INFC as the number of containers carried from the port in country (i), INFA as the number of airport in country (i), INFR as road density in country (i).

The dependent variable RHQ is the amount of inflows of RHQs in country (i) in year (t), without considering their parent companies' location. As for independent variables, GDP shows the market size of economies, which tends to have positive correlation with dependent variables. This is because the larger the market, the more powerful economies can be, enough to receive investment from abroad[9]. TAX literally indicates the corporate tax rate. As we explained above, some countries enact special tax measures for RHQs. For such countries, we replaced the data of ordinary corporate tax rate with that of curtailed tax rate. This variable should have negative correlation with the dependent variable. EDUT shows the ratio of tertiary educated worker. In our estimation, the higher academic degrees people obtain, the more globalized they can be. According to METI, the definition of globalized human resources is those who are familiar with foreign cultures and good at intercultural communication, and also ambitious to go abroad. Such human resources can be raised by tertiary education. Nowadays communications among universities in different countries are increasingly activated, and lessons to cultivate global knowledge are increasing in many universities as the importance of globalization increases. Unlike education until secondary, tertiary education can much more contribute to cultivation of globalized human resources. That is why we set this variable. In our estimation, this variable has significant positive correlation with the number of RHQ inflows. EDUL indicates the ratio of English speaker as first or second languages. English has built a strong position as an

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[9] 開発援助は直接投資の先兵か？重力モデルによる推計 (RIETI, 2007)

official language around the world. Especially in the world of business, the importance of English is increasing rapidly. Therefore, RHQs would require workers who are good at English. This variable would have positive correlation with the dependent variable. INFC indicates the number of containers carried from the port, which shows the transporting ability through the sea routes. Also, INFA indicates the number of airport which shows the transporting ability through the air routes. INFR indicates the road density which was calculated by dividing 100 sq. km of land area from km of road, showing the transporting ability through the land routes. RHQs tend to be placed in a country where is easily accessible to all the subsidiary companies in order to supervise them. This accessibility indicates not only the geographic closeness but also the level of development of each transporting infrastructure, according to METI. Therefore, each variable would show positive correlation with the inflow of RHQs.

2.3   Data and methodology

Table A1 below summarizes the data sources to be used in our model.

Table 1: Variables Included in the Dataset

Variables	Meaning	Source
RHQ	the number of regional headquarters inflow	Ministry of Economics, Trade and Industry
GDP	Gross Domestic Product	WDI, World Bank
TAX	corporate tax rate	WDI, World Bank
		JBIC
		JETRO
EDUT	the ratio of tertiary educated workers	WDI, World Bank
EDUL	the ratio of English speaker	WDI, World Bank
INFC	the number of containers carried from the port	WDI, World Bank
INFA	the number of airport	WDI, World Bank
INFR	road density (km of road per 100 sq. km of land area)	WDI, World Bank

As for host country (i), we selected all the countries where certain number of RHQs have been established and where sufficient data are available. As a result, 8 countries were chosen: Japan, Hong Kong, Korea, India, Thailand, Malaysia, Singapore and Indonesia. We did not choose certain source countries of RHQ inflows, because this analysis is not bilateral.

The data about the amount of RHQ inflows to host country (i) are based on the statistics investigated by METI. GDP is taken from World Developed Indicators from World Bank in US dollars. The data of TAX is also based on WDI, but as for the countries which enact special tax measures for RHQs, we extracted data from the database of JETRO and JBIC. The rest of variables, EDUT, EDUL, INFC, INFA, INFR are taken from WDI. The data of GDP, INFC, INFA are transformed to natural logarithm in our model, as the letter ln indicates.

We construct a dataset including 8 countries for 20 years, from 1990 to 2009. Our analyses are divided into 3 phases. Firstly, we set the number of RHQ inflows as a dependent variable without considering their sector. Secondary, we set RHQs of manufacturing sector as a dependent variable, then finally we conduct analysis with a dependent variable which indicates RHQs of service sector. We conduct pooling data analysis for each group, and compare the results.

2.4   Empirical Results

We employed three types of pooling analyses: all industries, manufacturing sector, service sector. In this chapter, we compare the results of each analysis and state our speculation considering the results.

Tables 2 to 4 show the results of our panel data analysis.

Table 2: The results of panel data analysis in all industry

Dependent variable: HQ			
Independent variables	Estimate	t-value	Pr(>|t|)
(Intercept)	37.065744	0.4622	0.64810
lnGDP	-0.330767	-0.0780	0.93845
TAX	-0.767855	-2.0168	0.05504
EDUT	0.707910	2.2787	0.03188
EDUL	0.192671	0.8923	0.38108
lnINFC	-0.338868	-0.1139	0.91030
lnINFA	-0.065252	-0.0100	0.99207
INFR	0.041060	1.2198	0.23440
Adj. R-Squared : 0.62801			
Observations : 32			

Table 3: The results of panel data analysis in manufacturing industry

Dependent variable: HQ manufacturing			
Independent variables	Estimate	t-value	Pr(>|t|)
(Intercept)	-6.8952910	-0.4475	0.65854
lnGDP	-0.6596612	-0.8099	0.42594
TAX	0.0760342	1.0393	0.30900
EDUT	0.1630118	2.7308	0.01165
EDUL	0.0367646	0.8861	0.38433
lnINFC	0.2854724	0.4992	0.62220
lnINFA	1.3040415	1.0442	0.30682
INFR	0.0073040	1.1293	0.26995
Adj. R-Squared : 0.5231			
Observations : 32			

Table 4: The results of panel data analysis in non-manufacturing industry

Dependent variable: HQ non-manufacturing			
Independent variables	Estimate	t-value	Pr(>|t|)
(Intercept)	47.209069	0.6308	0.53414
lnGDP	0.143383	0.0362	0.97139
TAX	-0.851661	-2.3969	0.02468
EDUT	0.571312	1.9705	0.06042
EDUL	0.163840	0.8131	0.42417
lnINFC	-0.915405	-0.3296	0.74459
lnINFA	-0.886142	-0.1461	0.88507
INFR	0.033648	1.0711	0.29479
Adj. R-Squared : 0.61981			
Observations : 32			

At first we discuss the results of analysis with RHQs of all industries. TAX has significant negative correlation with RHQ inflows, which fairly fits the theory of METI. In other words, parent companies establish RHQs in countries where corporate tax rate is lower, in order to cut the taxation cost of all the subsidiary companies in the region. Moreover, EDUT, which indicates the ratio of tertiary educated workers, has significant positive correlation with the dependent variable. This means that the higher the ratio of highly educated workers is, the more attractive countries can be as locations of RHQs. Furthermore, INFR has a slight significant positive correlation with RHQ. This means that the more roads are constructed, the more RHQs inflow. As for the rest of variables, significant correlation cannot be seen in our analysis.

As for the analysis with RHQs of manufacturing sector, though TAX did not show expected correlation, EDUT shows significant positive correlation with RHQ as expected. Also, INFR has a slight significant correlation with RHQ. The difference from the result of all industries is that INFA has a slight significant positive correlation. RHQs of manufacturing sector tend to undertake logistics roles, thus transporting infrastructures would be more important than RHQs of other sectors.

Finally, as for the analysis with service sector, TAX and EDUT show fairly expected correlation with the dependent variable. The strength of coefficients of TAX and EDUT is higher than other sectors. Also, INFR has a slight significant positive correlation like others.

Considering all the results of our analyses, TAX, EDUT and INFR consistently showed correlations as we estimated. However, GDP did not show any significant correlation. Therefore, parent companies do not see market size of the country when determining the location of RHQs. EDUL also did not have correlation, which means that the ratio of English speakers does not have any effects toward the decision of RHQ location, while the ratio of tertiary educated workers are important. Furthermore, INFC did not show any correlations, even the analysis with RHQs of manufacturing industry. Transportation through the sea route is not seen as important even when RHQs undertake the role of logistics.

3   Concluding remarks

In this study, we analyzed the determinants of RHQs of MNCs in Asia. As a dependent variable, we set the number of RHQ inflows to host countries. As variables, we chose GDP, corporate tax rate, the ratio of tertiary educated workers, the ratio of English speakers, the number of containers carried from the port, the number of airport, and the road density in host countries. As host countries, we selected 8 countries, and we employed 3 kinds of analyses: all industries, manufacturing sector and service sector.

Consistently, TAX showed the significant negative correlation with the inflow of RHQs. Basically, by establishing RHQ, all the incomes subsidiary companies earn in the region are taxed with the rate of the country where RHQ is located. After RHQs collected incomes, they are transferred to parent companies as a form of dividend. Therefore, establishment of RHQs enable parent companies to cut a large amount of taxation cost. Thus parent companies seek for countries whose corporate tax rates are as low as possible. As for countries whose corporate tax rates are high compared to others, they can compete with such low taxed countries by enacting special tax measures.

According to METI's theory, RHQs require globalized human resources who are good at linguistic ability and able to deal with intercultural management, and such human resource can be cultivated through tertiary education. Apparently this statement is true considering the fact that the ratio of tertiary educated workers consistently has significant positive correlation with the inflow of RHQs. However, the ratio of English speaker did not show any correlations, thus the fact that the country's official language is not English and people are not good at speaking English cannot be a deterrence of attracting RHQs. Therefore, by heighten the ratio of tertiary educated people, and by improving the quality of education to cultivate globalized human resources, the country can be attractive location of RHQ establishments.

Road density consistently showed a slight significant positive correlation. This is because the most of RHQs play a role to manage subsidiary companies, thus in order to supervise them directly there needs to be sufficient roads to enhance communication among them. Also, RHQs tend to be placed close to the major market, thus road needs to be provided sufficiently which enables easy access to the market from RHQs. When it comes to manufacturing sector, the number of airport also has a slight positive correlation. In this sector, RHQs tend to undertake the role of logistics as well, thus more improved

transporting infrastructures are required. However, the number of containers carried from the port did not show any correlation. The sea routes are not used for both supervising subsidiary companies and logistics.

Finally, we make policy proposal to attract more RHQs in Japan. Taking the result of our analyses into consideration, it is apparent that we need to enact special tax measures. One of the highest corporate taxes among the world should be the biggest reason to deter attracting RHQs into Japan, therefore by curtailing corporate tax as low as other Asian countries, more RHQs would come to inflow to Japan. It has been said that Japanese are not good at speaking English, but this fact does not have any effect toward the inflow of RHQs. Instead, tertiary education to cultivate globalized human resources is important. Recently, government has identified some universities as super-globalizing universities and let them strive for cultivating globalized human resources. If this attempt succeeds, RHQs would increasingly inflow to obtain globalized Japanese workers. As for infrastructures, Japan are highly superior to other countries, thus at first we need to concentrate on solving the problem of corporate tax. I hope this study would be a help to attract RHQs into Japan and receive a lot of merits.

4 References

日本のアジア拠点化総合戦略　〜「企業が国を選ぶ時代」の立地競争力強化〜 (METI, 2010)

アジア地域統括会社に求められるリスク管理 (東京海上日動,2014)

アジア力 −世界経済の牽引車の光と影　(後藤, 2011)

開発援助は直接投資の先兵か？重力モデルによる推計 (RIETI, 2007)

Taxes and agglomeration: determinants of FDI in an enlarged European Union (Åsa and Karin, 2009)

Institutional Determinants of Foreign Direct Investment (Agnès, Maylis and Mayer, 2005)

What Determines Inward FDI in China? -An empirical study using firm-level data (Bin, 2013)

マレーシアの投資環境 (国際協力銀行, 2014)

The Macroeconomic Determinants of Cross Border Mergers and Acquisitions and Greenfield Investments (Neto, Brandão and Cerqueira, 2008)

Factors influencing the FDI Location choice for knowledge intensive services and headquarters within the EU and Austria (Falk, 2012)

DETERMINANTS OF FOREIGN DIRECT INVESTMENT FLOWS TO DEVELOPING COUNTRIES: A CROSS-SECTIONAL ANALYSIS (Demirhan and Mahmut, 2008)

Balance of Payments Manual: Fifth Edition, (International Monetary Fund, 2014)

http://www.allbusiness.com/glossaries/spillover/4958828-1.html

https://www.edb.gov.sg/content/edb/en/why-singapore/ready-to-invest/incentives-for-businesses.html

http://www.hkpost.com.hk/index2.php?id=6296#.VNnKlvmDmm5

http://ss-smb.nikkei.co.jp/column/15/04.html

http://www.erp.jbcc.co.jp/acube/SharedService.html

http://www.dir.co.jp/consulting/insight/management/20130807_007520.html

http://www.jetro.go.jp/world/asia/my/invest_03/

http://www.jetro.go.jp/world/asia/sg/invest_03/

http://www.jetro.go.jp/world/asia/th/invest_03/