Firm-specific, country-specific and region-specific competitive advantages: the case of emerging economy MNEs - Thailand

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Firm-specific, Country-specific and Region-specific Competitive Advantages: The Case of Emerging Economy MNEs – Thailand

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Abstract

In this study we examine the sources of international competitive advantages of MNEs from an emerging economy, Thailand, in the context of the ASEAN economic integration. Building on the theoretical reasoning of firm-specific advantages (FSAs) and country-specific advantages (CSAs) as well-established constructs in the international business literature grounded in the internalization theory, we introduce a new theoretical concept, the region-specific advantages (RSAs). We advance an argument that increasing levels of regional economic integration create competitive advantages beyond the FSAs and national CSAs as a source of international competitiveness. In addition, we develop a novel regional dual double diamond model to analyse regional competitiveness as a new source of competitive advantages for Thai firms. We use both primary and secondary data to empirically test our conceptual model and propositions. We find that the majority of Thai firms derive their international competitiveness from their CSAs rather than FSAs, and that they will benefit from ASEAN RSAs due to the increasing regional economic integration and cooperation. Our study significantly advances the literature on international competitiveness of emerging economy MNEs and we discuss the implications of findings for theory and practice.

Key words: firm-specific advantages (FSAs); country-specific advantages (CSAs); region-specific advantages (RSAs); regional dual double diamond model; Thailand; ASEAN.

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INTRODUCTION

In this article we aim to determine the sources of competitive advantages of multinationals from an emerging market, Thailand, by expanding beyond the traditional theoretical concepts of firm-specific advantages (FSAs) and country-specific advantages (CSAs) and advancing a new theoretical concept of region-specific advantages (RSAs). According to the conventional internalization theory popularized by Rugman's FSAs and CSAs framework (1981), there are two main sources of a firm's international competitiveness, its firm-specific advantages (FSAs) and country-specific advantages (CSAs). A firm's propensity to internationalize and expand across national boundaries depends on its ownership of superior FSAs over its foreign rivals and the firm's access to superior CSAs, which either substitute the lack of competitive FSAs or supplement existing FSAs. This two-dimensional perspective of the internationalization phenomenon has proven challenging in explaining the increasingly multidimensional world of regional integrations and globalization which we live in.

The emergence of various regional integrations across the globe with varying degrees of scale (number of member countries) and scope (degree of economic integration) has created an additional source of competitive advantage for the member countries both internally, within the regional integration, and externally with the rest of the world. Yet, the literature has largely neglected the competitiveness at regional level. Indeed, there have been virtually no theoretical models analysing international competitiveness based on a regional economic integration. Additionally, there is very limited empirical research which examines the competitiveness of a nation (CSAs) in the context of its interactions with other countries in its

region (Cho, Moon, and Kim, 2008b). This reflects a notable research gap, which we aim to address in this study.

Building on the theoretical postulates of the FSA/CSA framework advanced by Alan Rugman we develop a new theoretical concept, namely, region-specific advantages (RSAs) or regional competitiveness. The RSAs refer to the strengths and benefits conferred to countries and their firms that are located in a certain geographic region. The RSAs arise from the intra-regional proximity of the economies in the region and it is progressively enhanced by increasing level of regional economic integration and cooperation. Intra-regional benefits are based on relative geographic, cultural, administrative and economic proximity (distance) among the region's members (Ghemawat, 2001, 2007). In other words, increasing levels of regional economic integration create RSAs for the firms in the member countries. Firms can access these RSAs besides their home country CSAs and exploit their FSAs more effectively due to the location-specificity and region-boundedness of FSAs (Rugman and Nessara, 2006). Indeed, the advantages of intra-regional proximity are reflected in the fact that the majority of the world's largest 500 firms generate majority of their revenues regionally, not globally (Rugman and Verbeke, 2004; Rugman, 2005).

In addition, we develop a new theoretical framework of regional dual double diamond model to analyse regional competitiveness as a new source of competitive advantages for firms and nations. The proposed model builds on the theoretical postulates of the double diamond model (Rugman and D'Cruz, 1993; Rugman and Verbeke, 1993), and dual double diamond model (Cho et al., 2008b) and extends them from country level to regional level perspective.

We deem the Association of South East Asian Nations (ASEAN) to be a particularly interesting context to explore our propositions due to its heterogeneity, geographic location and evolution. ASEAN was formed in 1967 and is a group of ten countries in the South East Asia, including Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines,

Singapore, Vietnam, and Thailand. The major aims of the ASEAN regional trade and economic agreements are to accelerate economic growth, to promote active collaboration and mutual assistance in economic fields, and to collaborate for the greater utilisation of the members' agriculture and industries and for the expansion of their trade (Association of Southeast Asian Nations, 2014a). Furthermore, the ASEAN has free trade agreements with Australia and New Zealand, Japan, Korea, China and India, which is known as ASEAN+6.

The ASEAN member countries have agreed to increase the level of economic cooperation with the introduction and implementation of the ASEAN Economic Community (AEC) by December 31, 2015. The primary objective of AEC is to create a highly competitive economic region of equitable economic development and fully integrated into the global economy (Association of Southeast Asian Nations, 2014b). With the introduction and implementation of the AEC, not only trade but also investment, services, capital, and production factors can move freely among ASEAN member countries.

Thailand is an example of an economy with a history of protectionism. With the increasing regional trade and economic integration, Thailand must remove trade barriers and eliminate investment barriers. Consequently, Thai firms have been facing a fast changing business and institutional environments with intensified global competition. Thus, it is important to understand the sources of international competitiveness of Thai multinational enterprises (MNEs) by examining their FSAs, Thailand CSAs, and ASEAN RSAs.

Our study makes three new important contributions to the international business literature. First, our major theoretical contribution is to advance a new concept of RSAs as a source of international competitiveness besides the traditional well-established concepts of FSAs and CSAs. Furthermore, we develop a regional dual double diamond theoretical model to analyse regional competitiveness. Our study significantly extends the double diamond model (Rugman and D'Cruz, 1993; Rugman and Verbeke, 1993), and dual double diamond model

(Cho et al., 2008b) in analysing international competitiveness from the country level to the regional level. Moreover, our new theoretical model overcomes the limitations of Porter's single diamond model on national competitiveness, which does not consider the role of MNEs, the importance of distinction between physical and human factors, does not have international focus, and especially does not deal with the new reality of regionalism and regional economic integration across the broad triad of North America, Europe and Asia Pacific.

Second, we provide empirical evidence that Thai firms should consider not only Thailand CSAs but also the ASEAN RSAs that could provide access to advantages deficient or superior to those available in their home country CSAs to compensate for their weak FSAs (Rugman, 1981; Rugman and Verbeke, 2004; Rugman, Verbeke, and Nguyen, 2011).

Third, our study extends the literature on emerging economy MNEs, which has predominantly focused on MNEs from a few large countries of China, India, Brazil and Russia. In contrast, firms from small open emerging economies have not received sufficient attention as they deserve (Pananond, 2007, 2009; Jormanainen and Koveshnikov, 2012). Overall, our study makes important contribution to theory development and empirical literature of international competitiveness of small open economies, and emerging economy MNEs.

THEORETICAL SYNTHESIS AND PROPOSITION DEVELOPMENT

Firm-specific advantages (FSAs)

An MNE has a set of FSAs which are proprietary knowledge, arising from technology, marketing, brand name, capital, access to financing, process efficiencies, size (economy of scale and scope), and managerial expertise (Rugman, 1981; Rugman and Collinson, 2012; Verbeke, 2013). The FSAs are strong when they are superior to those of rivals.

According to internalisation theory (Buckley and Casson, 1976; Rugman, 1981; Hennart, 1982), the MNE creates an internal market to overcome market imperfections for knowledge

(Rugman et al., 2011; Rugman and Nguyen, 2013). Rugman (1981) posits that MNEs can derive better efficiencies and achieve higher returns from exploiting FSAs in international markets. They can overcome market imperfections for knowledge-based, intangible FSAs through internalisation. However, firms involved in international activities are subject to liability of foreignness, i.e. additional costs and risks in doing business abroad (Zaheer, 1995). The interaction and combination of FSAs and CSAs, as conceptualised in Rugman's CSA/FSA matrix, determine the internationalization and performance of a firm.

Rugman and Verbeke (1992) develop the concept of non-location bound (NLB) and location-bound (LB) FSAs and they refer to this thinking as "new" internalization theory. On the one hand, non-location bound FSAs can be transferred abroad and exploited for economies of scale, scope or of national differences (or the benefits of integration, Bartlett and Ghoshal, 1989). Significantly, Rugman and Verbeke explicitly recognize that non-location-bound FSAs can be developed not only by the parent firm, but also in the subsidiaries. On the other hand, location-bound FSAs, are those FSAs which may only be exploited in a particular location or a region and are not transferable without adaptation (or the benefits of national responsiveness, Bartlett and Ghoshal, 1989). It is important to emphasize that a firm engages in international business not only to utilise their FSAs but also to leverage or gain benefits from home or host country CSAs (Rugman et al., 2011; Rugman and Nguyen, 2013). Scott and Giroud (2015) provide an excellent comprehensive review on FSAs of MNEs.

The literature on emerging market EMNEs documents that EMNEs tend to lack the traditional Western-type FSAs in advanced patented technology, global brands, especially system integration and managerial coordination skills (Luo and Tung, 2007; Rugman and Li, 2007; Deng, 2009; Rugman, 2009; Rugman, Nguyen, and Wei, 2014). They derive their competitiveness from home-country CSAs, such as low-cost factors of production, and government support (e.g. access to low-cost credit financing, and usage of the government

international trade and investment apparatus, etc.). Thus, the FSAs which EMNEs might possess are home country-bound in nature (Rugman and Nguyen, 2014; Rugman et al., 2014; Pananond, 2007, 2009; Sukpanich and Rugman 2010). Hennart (2012) argues that EMNEs benefit from the monopoly of home CSAs and use the rents from the monopoly power over home CSAs to finance strategic asset seeking investments in developed countries so as to obtain FSAs they lack. The dominant control of home country resources enables EMNEs to embark on internationalization. We suggest that similar to firms from other emerging economies, Thai MNEs do not possess the traditional NLB FSAs.

An overview of the FDI outflow activities by Thai firms endorses this proposition. Although there has been a notable rise in the level of Thai outward FDI since the late 1980s evidently Thailand lags behind not just developed economies but the lead emerging markets. Thailand's FDI outward stock in 2014 was 17.5 percent of its gross domestic product (GDP) comparatively lower than the regional 35 percent for South-East Asia and significantly lower than the regional averages for European countries (60 percent) and North American economies (37 percent) (UNCTAD, 2015). Considering that ownership advantages of NLB FSA are the main drivers of outward FDI (Dunning and Lundan, 2008) this implies that Thai firms' FSAs are not at par with those of their counterparts from the more developed countries as well as some of the other emerging economies. Furthermore, evidently Thai firms tend to direct their FDI predominantly in the sectors where Thailand has strong CSAs (food, beverages and tobacco; construction; transportation), suggesting that these firms have developed FSAs that are very much location specific.

Hence, we advance the following proposition:

Proposition 1: Thai MNEs do not have strong non-location bound FSAs.

Country-specific advantages (CSAs)

A firm can sustain and enhance competitive advantages in a particular country based on that country's national competitiveness (Dunning and Lundan, 2008; Rugman and Verbeke, 2009). The CSAs can be based on natural resource endowments, labour force, government regulations, and institutional and cultural factors, which are exploited only in the country where the firm is located (Rugman and Collinson, 2012). Moreover, country factors are imperfectly mobile across borders or may create high costs for a firm's resource mobility (Fahy, 2002). Enright (2005) argues that countries have different institutional environments, such as politics and policy, quality of infrastructures, customers, quality of life, and skills and capabilities of the local workforce, which influence a firm's location choice decision (Rugman, Oh, and Lim, 2012; Rugman and Oh, 2013).

Fahy (2002) groups CSAs into two broad categories, which are basic and advanced factors. Basic CSAs are easily duplicated resources, such as natural resources, quantity of customers, and quality and quantity of unskilled workers. Competitors can gain access to these similar resources by investing or locating in the same location. Thus, basic CSAs cannot generate unique benefits for firms. On the other hand, advanced CSAs are country-level capabilities rather than assets, such as advanced production factors, education system, research institutions, technology capabilities, communication infrastructures, sophisticated customers, and skilled workforce (Porter, 1990; Kogut, 1991; Fahy, 2002). Advanced CSAs are important factors influencing a firm's location choice, as they play an important role in FSAs development.

The literature on emerging economy MNEs documents that their FSAs are predominantly based on home-country CSAs and hence deeply embedded in their national factors (Hennart, 2012; Buckley, 2014; Rugman and Nguyen, 2014; Rugman et al., 2014). These include access to low-cost factors of production, market size, privileged access to governments, interest groups' influence on public policy makers, dominant control of input resources and output

markets in the home country, and easy access to cheap and implicitly subsidized credit, especially in the case of Chinese firms (Rugman and Li, 2007; Rui and Yip, 2008; Rugman, 2009, 2010; Karnani, 2012; Luo and Wang, 2012; Buckley, 2014; Rugman and Nguyen, 2014; Rugman et al., 2014). We suggest that similar to their counterparts from other emerging economies, Thai MNEs' FSAs are based upon Thailand's CSAs. Hence, we advance the following proposition:

Proposition 2: Thai MNEs' competitiveness is based on Thailand's CSAs.

Region-specific advantages (RSAs)

Region-specific advantages (RSAs) or regional competitiveness refer to benefits for firms and nations within a particular geographic region, which are created by regional free trade agreements, and regional economic integration and cooperation among member countries. For example, member countries can export their goods to other member countries without paying tariffs. In addition, RSAs benefits also arise from cultural, institutional, geographic and economic proximity. For instance, geographic proximity reduces the costs of transportation and communications. Cultural proximity moderates differences in consumer preferences reducing the need (cost) for customization. Managing and administering cross-border activities within a region reduces complexities and increases governance efficiencies.

Regional economic integration augments the benefits of proximity by creating a single market, and production base, which allows for the free flow of goods, services, capital, and labour, promotes equitable economic development, and enhances international competitiveness of the region in the world economy (Asian Development Bank, 2015). Furthermore, Rugman and Oh (2013) argue that formal institutional arrangements increase the importance of the region in MNEs' international activities. Regional economic integration is becoming increasingly effective in arbitraging goods and services markets at the regional level.

Trade creation occurs when firms invest in goods and services, which they have comparative advantages and trade with other member countries. This can result in efficient trade since business activities move to countries, which have better resources and can produce goods at a lower cost. In other words, regional competitiveness offers benefits to firms that have lower costs of production and higher quality goods than those of competitors. Moreover, the enlarged markets provide firms opportunities to develop economies of scale, which in turn may enhance their competitiveness in international markets. The benefits of FSAs and CSAs are arguably enhanced by deeper institutional integration, and increase intra- and inter-firm resource flows within an economic cluster or a regional bloc (Oh and Rugman, 2012).

Indeed, Fratianni and Oh (2009) show that the ASEAN economic integration has a strong trade creation effect. Furthermore, Selmier and Oh (2013) find that small ASEAN member countries as a group can claim better economic outcome in negotiating with other countries. In a related manner, Sukpanich and Rugman (2010) analyse the international competitiveness of ASEAN firms and compare their competitiveness with other regions.

Rugman and Oh (2008) examine FSAs and CSAs of Korean MNEs in the regional context. These scholars argue that MNEs from large countries, such as the United States and Europe develop their FSAs based on their large home markets. However, firms from small open economies, such as Canada, Ireland, New Zealand, Belgium, and Singapore may not develop their FSAs based entirely on their home markets. For example, since Korea is a relatively small country, Korean firms are encouraged to exploit host countries' resources and markets, and thus they are motivated to develop international capabilities. In the past, Korean firms' FSAs have been built upon a set of Korean CSAs. Now their FSAs are built upon neighbouring countries' CSAs, for example, the ASEAN countries and China, which provide low-cost labour and natural resources, and Japan, which provides advanced technology.

Rugman and Verbeke (2004), Rugman and Girod (2003), Delios and Beamish (2005), Oh and Rugman (2006), Rugman et al. (2012), Oh and Rugman (2014), Rugman and Oh (2013) provide convincing evidence that large MNEs have developed FSAs taking location advantages of other member countries within their home region. Furthermore, Rugman and Sukpanich (2006) find that FSAs are more deployable and exploitable in the home region due to the region-boundedness and location-specificity of FSAs (Rugman and Verbeke, 1992). Within regional economic integration, people, capital and knowledge can move freely fostering the efficient use of regional factors of production and larger markets. This will enable national economies to leverage their comparative advantages and strengthen their national competitiveness both within and beyond the regional integration. Hence, we advance the following proposition:

Proposition 3: Thailand's country-specific advantages (CSAs) can be enhanced by the ASEAN region-specific advantages (RSAs).

Theoretical development of regional dual double diamond

Single diamond model

Porter's (1990) single diamond model outlines that national competitiveness depends on one or more of the four broad attributes of a nation: factor conditions, demand conditions, related and supporting industries, and firm strategy, structure, and rivalry, and two external variables, namely, government and chance. The sources of national competitiveness are created within the home-based industries of a country. The home-based resources are the main sources to improve competitiveness in international markets. The nation plays an important role for domestic firms within a particular industry, and firms create their competitive advantages within a domestic context before expanding internationally (Grant, 1991).

Porter (2000) advances the model by introducing the concept of cluster as a way to enhance competitiveness of firms, governments, and other institutions. Cluster can be at national,

regional, and local level. Moreover, a cluster concentrates on interconnectedness between firms, suppliers, and associated institutions. The government can influence the national competitiveness by creating clusters, which help to increase exporting, and attracting FDI. The cluster extends the understanding of single diamond model by grouping firms in the same industry to increase their cooperation, which can in turn increase the national competitiveness. However, the cluster still focuses mainly on local factors, as it is based on local and national context rather than international context.

Porter's single model has been criticised for several limitations. Narula (1993) argues that Porter's single diamond model cannot be applied to developing countries as it has been tested on a few industrialised countries and focuses mainly on successful industries, and ignores non-exporting or uncompetitive industries. Bellak and Weiss (1993) suggest that the nation with small domestic market should consider foreign demands as being the main markets for domestic supply. Export can be a source of national competitiveness, since it can create greater competitive advantages for a nation. Cho (1994) argues that it is necessary to separate human factors from those original four physical determinants, for example, unskilled labour, skilled labour, and the ability of government, since the four physical determinants can be generated, appropriated and controlled by human factors. Firms from countries that have strong basic CSAs tend to build their international competitiveness based on their ability to leverage these basic CSAs.

Another limitation of Porter's single diamond is that international dimension is missing. Porter (1990) underestimates the importance of MNEs and fails to incorporate the effects of multinational activities. Therefore, the link between the components of the national diamond model in international competitiveness is unclear (Dunning, 1991; Moon, Rugman, and Verbeke, 1995). Porter ignores industries which compete through offshore production or export from the home country to value-adding subsidiaries (Cartwright, 1993). Dunning

(1993) argues that MNEs have increased cross-border value-added activities which influence each of the components of national competitiveness. Porter (1990) does not consider the effects of multinational activities. Dunning (1993) suggests that FDI activities can affect the home and host country's diamonds and therefore it should be added as exogenous variable in the same way as the role of government and chance in Porter's single diamond.

Dunning (1991) and Rugman (1991) maintain that the two-way FDI influences the competitiveness over trade and investment; however, Porter's single diamond model has failed to capture that. In addition, Rugman and D'Cruz (1991), and Rugman and D'Cruz (1993) argue that both outward and inward FDI can have a beneficial impact on a nation. Particularly for less-developed countries, inward FDI can improve their CSAs and allow them to obtain competitive advantages. For example, Singapore's international competitiveness is derived from a combination of two or more country diamonds, which arise from Singapore's CSAs and foreign-owned MNEs' FSAs (Moon et al., 1995). This is also true in other countries, such as Canada and Ireland (O'Malley and Egeraat, 2000). The results show that the role of a foreign-owned firm is as important as that of a domestic-owned firm, which potentially contribute to competitiveness of a host-nation industry.

Double diamond models and our development of regional dual double diamond model

Given the apparent shortcomings of Porter's single diamond, a number of subsequent models have been advanced, including double diamond model (Cartwright, 1993; Hodgetts, 1993; Rugman and D'Cruz, 1993; Rugman and Verbeke, 1993), generalized double diamond model (Moon et al., 1995; Moon, Rugman, and Verbeke, 1998), nine-factor model (Cho, 1994; Cho and Moon, 2000; Cho et al., 2008b), and the dual double diamond model (Moon, 2006). The generalised double diamond model and the nine-factor model improves Porter's single diamond model in two directions: scope (physical and human factors) and source (domestic and international contexts) of national competitiveness. These two models need to be

integrated into a single model because both scopes and sources are interacting and provide a better understanding of national competitiveness.

Moon (2006) introduces the dual double diamond model, which is more comprehensive than the generalised double diamond model and the nine-factor model in explaining the national competitiveness of countries with heterogeneous attributes (Cho et al., 2008b). National competitiveness should be analysed from both perspectives. The dual double diamond model analyses the role of international human factors. It is very important to consider international human factors separately since they can move relatively freely in the globalisation era and they are very important to enhance national competitiveness. The dual double diamond model consists of four dimensions of physical and human factors in domestic and international contexts. The physical factors are measured by factor conditions, demand conditions, related and supporting industries, and business context. The human factors are measured by examining workers, professionals, entrepreneurs, and politicians and bureaucrats (Moon, 2006; Cho, Moon, and Kim, 2008a; Cho et al., 2008b).

In this study, we develop a regional dual double diamond model to analyse the regional competitiveness. Specifically, we examine how Thai firms can potentially access and use other ASEAN member countries' CSAs to improve their competitiveness. As such, we significantly extend the dual double diamond from the country level to the regional level. In other words, we add another level of analysis of competitiveness besides firm and national competitiveness.

METHODOLOGY

Data sources

There are three levels of analysis in our study, namely, firm, country, and region. We use both secondary and primary data in our analysis.

Secondary data source

We use data from the IPS National Competitiveness Research published by The Institute for Industrial Policy Studies in South Korea for several reasons. First, the IPS research has a strong theoretical basis using the dual double diamond model with minimum multicollinearity (Cho and Moon, 2005). The IPS has carried out consistent surveys through Korea Trade Investment Promotion Agency (KOTRA) which has more than 100 offices abroad (Cho and Moon, 2005). In addition, from 2008, the IPS has added data collected by partner scholars who conducted the executive surveys in their host countries and the pool of respondents have been enlarged (The Institute for Industrial Policy Studies, 2015).

Second, the IPS data measures the competitiveness of countries, using a robust methodology of nine factors, 23 sub-factors, 209 criteria, and strategy simulation rankings (The Institute for Industrial Policy Studies, 2015). The nine factors include four physical factors (factor conditions, demand conditions, related and supporting industries, and business context), four human factors (workers, professionals, entrepreneurs, and politicians and bureaucrats), and chance events. The data covers both soft and hard data with equal weight between both sources of data. We provide a detailed description of IPS factors and sub-sectors in Appendix 1 for readers' convenient reference.

Furthermore, the IPS has applied a three-year moving average methodology in the 23 sub-factor level data. This methodology is also used in some other studies such as the Index of Economic Freedom by the Heritage Foundation and Wall Street Journal and the Corruption Perception Index by Transparency International, in order to reduce the abrupt variations, which might arise due to external shock for a certain year (The Institute for Industrial Policy Studies, 2015).

Third, other national competitiveness datasets, such as IMD and World Economic Forum (WEF) have shortcomings (Cho et al., 2008b) mostly due to lack of sound theoretical grounding or pertinent research methodologies (The Institute for Industrial Policy Studies,

2015). For example, the model which is used to collect data by IMD has changed frequently and lacks consistency among the partner institutes conducting the surveys, while WEF data is mainly based on soft data and weighting between soft and hard data for each variable is too complicated. In contrast, the ISP research moves away from the advanced nations' point of view, which has been the norm in existing datasets, and uses a research methodology of dual double diamond model which can be applied to all countries (The Institute for Industrial Policy Studies, 2015).

The IPS provides data on national competitiveness for seven out of ten member countries of the ASEAN (Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam). Information for Brunei Darussalam, Lao PDR, and Myanmar are not available. Thus, we focus on these seven countries due to public data availability.

Primary data: sample, questionnaire survey, and data collection

We compiled a list of Thai firms for our survey based on two criteria (i) they are publicly-listed firms on The Stock Exchange Market of Thailand (SET) for practical reasons of the availability and accessibility of the data, and (ii) firms which engage in international activities through exporting or FDI. In 2006, there was 503 registered manufacturing and service firms in SET. As we focus on the competitive advantages of international firms, we include only firms with international activities in our analysis. Firms that were registered after 2006 and/or were delisted from the SET during the five-year period 2006– 2010 were not included.

We manually consulted these firms' annual reports, accounting notes, management discussions, and disclosure reports to collect data and obtain understanding of their business activities. These reports include general information, top management team information, and financial data. In addition, we used questionnaire survey to collect data. We aimed to seek more information on these firms' international activities, such as sales by geographic

segments, R&D intensity, marketing intensity, and top management capabilities, which were used to analyse the sources of FSAs and the degree of multinationality.

We used a survey instrument to collect data relating to eight components of the dual double diamond model. We carefully designed our questions on the basis of international business theories. There were 17 questions collecting firm-, country-, and regional-level data in order to address the key factors, which created competitive advantages for Thai firms. The structure of the questions included closed-ended, multiple-choice, and seven-point Likert scales structures. In addition, some questions were open-ended, and they encouraged respondents to answer in detail and provided space for self-expression and richness of detail, for example, the questions which asked them to give more information about their competitiveness. Specifically, the participating firms were asked to indicate the availability of Thailand's and the ASEAN's resources in each factor for their firms. Managers' answers provided us with their perceptions of the level of CSAs and RSAs available to their firms. Our questionnaire is presented in Appendix 2.

We conducted a pilot study with ten firms to ensure that managers had no difficulty in understanding our questionnaire. We also sought comments to improve the contents and clarity of the questionnaire. The respondents of this study consisted of non-English speakers. We made our questionnaire as simple as possible for all respondents and we documented it in both Thai and English language for their convenience. The respondents could choose to answer in either Thai or English.

We carried out the final survey by e-mail between April 2012 and November 2012. The advantages of e-mail and self-administered questionnaires are that the questionnaires are sent directly to relevant respondents and they can record their answer. Moreover, they are easier to follow up and are traceable.

There were 503 firms in the SET; however, we could contact only 284 due to unavailability of e-mail addresses of managers. Since the SET does not require firms to separate domestic and foreign sales, both domestic and international firms were included. We received in total 140 returned questionnaires. There were 67 responses, which indicated that they had domestic sales only, and therefore these firms were not relevant to our study. The final sample has 73 firms. Our study achieved a response rate is 25.70 percent, which compares favourably to previous studies using survey method to collect data (see Harzing, 2000).

Our new methods to analyse RSAs

We propose two methods to analyse regional competitiveness using the IPS data: (i) the Average Index of the seven ASEAN member countries in each factor, and (ii) the Strongest Country Index among the seven ASEAN member countries in each factor.

The average ASEAN index enables a comparison between the level of regional competitiveness and each member country's national competitiveness, as it is easier to understand which country is stronger in each factor relative to the regional average. However, due to significant differences in economic development among ASEAN member countries, the average index does not show the true potential of the region. This method does not show the strongest factor available in the ASEAN region that firms in member countries can access and leverage to develop their own competitiveness.

In the second method, we calculate the ASEAN index by selecting the strongest ASEAN member country in each factor and we use those indices to represent the ASEAN's regional competitiveness (in comparison with the average index). Each factor in the ASEAN diamond reflects the member country with the strongest competitiveness in that particular factor among the ASEAN members. Therefore, other member countries can benefit and increase their competitiveness, according to the strongest country, by using the ASEAN regional competitiveness. In addition, the regional competitiveness of ASEAN can be compared with

that of non-member countries, to establish the member countries' advantages (or disadvantages) based on the ASEAN regional competitiveness.

RESULTS AND DISCUSSION

Firm-Specific Advantages (FSAs)

We examine four types of non-location bound (NLB) FSAs, including technology intensity, marketing intensity (each measured by total respective spent as percentage of total revenues), managerial expertise (measured on a seven-point Likert scale), and firm size (measured by the number of employees). We find that, Thai firms in our sample spend on average 2.5% on technology intensity, 1% on marketing intensity, have an average score of five on managerial expertise and have 2,767 employees on average.

We use the average ratios criteria from the studies by Rugman and Oh (2008), and Almodóvar (2011) as sources of reference for our comparative analysis and benchmarking. If firms have a higher value than the average of the sample, they are classified as strong FSAs and weak FSAs otherwise. By using such criteria, only one-quarter of the firms in our sample are strong in marketing intensity and technology intensity, one-fifth of the firms are strong in firm size, and half of the firms are strong in managerial expertise.

According Rugman and Oh (2008), firms are considered as having strong FSAs when they are strong in at least one out of two types of FSAs. In our study, we analyse four types of FSAs, so if firms are strong in at least two types of FSAs they are classified as strong in FSAs. We find that that only 33 percent of firms in our sample are strong in at least two types of FSAs. In other words, the majority of Thai firms have weak FSAs.

Rugman and Oh (2008) examine the international competitiveness of 61 largest Asian firms in the Fortune Global 500 from Japan, Korea, and China. The FSAs are measured by technology and marketing intensity. The results show that firms have strong FSAs when they spend on average more than of 2.5 percent for R&D and 15.0 percent for marketing. When we

compare these FSA ratios of the largest Asian firms to those of our sample of Thai firms, we find that only one-quarter of Thai firms have strong FSAs. The above empirical evidence provides support for our first proposition, which predicts that Thai firms do not have strong non-location, bound (NLB) FSAs. Thus, our findings are consistent with the extant literature on emerging economy MNEs, which show that they lack Western-type traditional NLB FSAs in R&D, technology and global brands (Luo and Tung, 2007; Rugman and Li, 2007; Deng, 2009; Rugman, 2009; Rugman et al., 2014).

Country-specific advantages (CSAs)

We find that most of Thai firms mainly focus on cost strategy. Their competitiveness is created from the lower cost of production factors and from the availability and low cost of both skilled and unskilled labours. They do not really pay attention to development of their FSAs if their products can still compete with those of their competitors. In other words, they rely predominantly on CSAs. Simply put, they derive their competitiveness based on home-country CSAs. Thus, we find support for our second proposition, in which we predict that Thai MNEs derive their international competitiveness from Thailand's CSAs. Our findings are consistent with previous studies on emerging economy MNEs which rely on home country CSAs rather than FSAs (Rugman and Doh, 2008; Gugler, Chaisse, and Pananond, 2011; Rugman et al., 2012; Rugman and Nguyen, 2014; Rugman et al., 2014).

National and Regional Competitiveness

We analyse the national and regional competitiveness of Thailand by using our proposed regional dual double diamond models, in which one model employs the region's average for each factor, and another one employs the regions strongest country factor. Figure 1 presents the dual double diamond shape of Thailand relative to the ASEAN dual double diamond when we use the average index of the seven ASEAN member countries.

Figure 1 about here

We find that Thailand has a comparatively strong national competitiveness relative to the ASEAN average index across all factors except for factor conditions, and politicians and bureaucrats factor. Thailand shows stronger demand conditions, related and supporting industries, and business context than the average ASEAN average index for physical factors. One plausible explanation for the lower factor conditions is that Thailand has low endowments in energy resources, which are the main measure of factor conditions in the IPS dataset. Thailand's human factors are also stronger than the ASEAN average index for workers, professionals, and entrepreneurs. Thailand has weak politicians and bureaucrats factors because of the prolonged political instability in the country. Because there is a high degree of heterogeneity among seven ASEAN countries, the average index analytical approach might provide misleading information on the true positioning of Thailand in the ASEAN, and its areas of competitive strengths and weaknesses.

We supplement the average index method with the index of the strongest ASEAN member country method where the strongest country in each factor is selected to represent the ASEAN's regional competitiveness. Figure 2 shows the shape of Thailand's dual double diamond relative to the ASEAN's regional dual double diamond based on the strongest country in each factor.

Figure 2 about here

It is evident that the diamonds in Figure 2 exhibit a larger gap between Thailand's factors and those of the strongest country in the region. It is not surprising that Singapore is by far the strongest economy in the region across all factors with the exception of factor conditions. Indonesia has the strongest factor conditions. The Philippines has the strongest workers factor because it has the lowest labour cost among seven ASEAN countries.

It can be seen from these two methods that the combination of average index of seven member countries (Figure 1) and the strongest country in each factor (Figure 2) is the most

suitable to analyse the ASEAN diamond. The strongest level of each factor from different countries is selected to draw the regional dual double diamond. It shows that Thailand can benefit from access to CSAs of other ASEAN member countries in the region facilitated by an increase in the level of regional economic integration from a free trade area to a common single market. When the ASEAN Economic Community (AEC) becomes effective in 2015, Thai firms can benefit from the AEC by accessing cheaper factors of production, superior technology, knowledge, skills and markets by relocating their business or production base to countries which offer better respective conditions for their firms. This is in line with Dunning's eclectic paradigm and four FDI motives, i.e., market seeking, efficiency seeking, natural resource seeking, and strategic asset seeking (Dunning, 2000).

The second model (Figure 2) shows that Thailand can increase its competitiveness by accessing and exploiting other ASEAN member countries that have stronger competitiveness. For example:

(1) Factor Conditions: Thailand is a small country with scarce natural resources, especially in oil and gas energy. However, Indonesia is the strongest country in factor conditions. Thai firms can increase its competitiveness in factor conditions by accessing and using Indonesian competitiveness in factor conditions. Therefore, Thai firms can relocate or invest more in Indonesia in order to benefit from natural resources in Indonesia.

(2) Demand Conditions, Related and Supporting Industries, Business Context, Professionals, Entrepreneurs, and Politicians and Bureaucrats: Singapore is the strongest country in these six factors. For example, Thailand can benefit from Singapore in demand conditions as customers in Singapore are more sophisticated and they have higher purchasing power because they are better educated and the GDP per capita is higher. Moreover, research institutions are excellent by global standards, and communication and transportation are well-developed. Singapore is very open to foreign investments since it gives equal treatment to domestic and foreign firms.

Thai firms can benefit from partnering and collocation with firms in Singapore, which will give them access to these superior competitive advantages.

(3) Workers: the Philippines is the strongest country in workers factors, and Thailand can benefit from lower labour costs and the availability of the labour force from the Philippines. Moreover, Filipino workers have good working attitude. Because the majority of Thai firms pursue the predominantly cost-based competitive strategy and labour cost in Thailand are increasing, the access to the Philippines labour market and increased labour mobility as a result of the move to AEC will enable Thai firms to sustain their competitive advantages.

Comparative analysis of IPS data and our survey data

Table 1 shows the comparative values for eight competitiveness factors for Thailand and ASEAN derived from the two sources of data, primary and secondary, which are used in this study, namely, the secondary data from the IPS dataset and the primary data from our survey. It is evident from Table 1 that there are significant differences between Thai managers' perceptions (column 1) and the IPS data (column 3) with regard to Thailand's national competitiveness. In general, Thai managers appear to perceive that most of the factors are stronger than what the IPS data shows, except for workers. Thai managers appear to perceive workers factor in Thailand to be less favourable (4.37) than the IPS data indicates (5.96). The perception by Thai managers is mostly driven by the increase in labour costs in Thailand and increased competition for low cost production from some of other ASEAN member countries, such as Laos and Myanmar.

Table 1 about here

The biggest difference between the IPS data and the survey data relates to factor conditions. IPS data ranks Thailand relatively low (2.61), but the surveyed firms indicated that the availability of factor conditions is at a slightly higher level for their firms (4.95). This arises from differences in measurement. The IPS data mainly place more emphasis on energy

resources, while Thai firms mainly emphasise other natural resources relevant to their industries. The major industries of Thailand are cement, food, and agricultural industries that are not very well captured in the IPS dataset.

With regard to Thai managers' perceptions of the availability of factors in the ASEAN region Table 1 shows that they have a good knowledge of the region's strengths and weaknesses. When survey data is compared with the IPS data on ASEAN average factors (column 4) and the strongest member country factors (column 5), Thai managers' views (column 2) seem to be somewhere between the average and the strongest across all factors except for workers. There is a consistency among Thai managers' perceptions about the quantity and quality of workers in Thailand and the ASEAN region; however, there is a more pessimistic perception on workers factor than that indicated by the IPS data. The most significant difference is the business context factor. Thai managers seem to perceive the ASEAN business context to be much stronger (5.12) than what the IPS data indicates (3.45). This suggests that there is a much intensified competition and rivalry among firms in the ASEAN region than in Thailand. Overall, both sources of data confirm that Thailand is perceived to have strong CSAs and that these home country CSAs can be enhanced by the ASEAN regional competitiveness. These findings provide additional support for our second and third propositions.

Analysis of Thai firms' sales data: benefits from regional integration

Our analysis of Thai firms' sales data by geographic segments presented in Table 2 shows the importance of regional markets and the benefits of regional economic integration for Thai firms. Thai firms in our sample generate 72 percent of their total sales within the ASEAN market, of which 56 percent comes from domestic sales. Another 16 percent are generated in rest of the Asia-Pacific region. In total, 88 percent of their total sales are generated in the home region of the broad Asia Pacific. When Thai firms internationalize through export or FDI activities, they focus predominantly on neighbouring markets in the home region as

opposed to outside the home region. This internationalization process is strongly influenced by the benefits from the ASEAN's RSAs through regional free trade agreements (AFTA and ASEAN+6).

Table 2 about here

In summary, our study clearly shows that Thai firms do not have the traditional Western-type NLB FSAs, such as technology, innovation, brands, and marketing. However, they derive their international competitiveness from their home-country CSAs (e.g. low-cost production factors, demand conditions, related and supporting industries, business context, workers, professionals, and entrepreneurs) and expand internationally through a low-cost strategy. The top management team of Thai firms have strong entrepreneurship (a type of managerial FSAs), which is a necessary prerequisite for their internationalization. Our findings are fully consistent with previous studies by Rugman and Doh (2008), Gugler et al. (2011) and Sukpanich and Rugman (2010), who find that most ASEAN firms' competitiveness are mainly based on CSAs, not FSAs. This is also the case for other emerging economy firms (Hennart, 2012; Rugman and Nguyen, 2014; Rugman et al., 2014).

Moreover, Thai firms are entirely home-region oriented where they generate 88 percent of their sales within the broad Asia Pacific region by leveraging regional free trade agreements, and regional economic integration and cooperation. They exploit RSAs thanks to ASEAN free trade agreements, and ASEAN+6. Our findings corroborate the literature on the regional nature of MNEs and how firms exploit the regional reality (Rugman and Verbeke, 2004; Rugman and Oh, 2008, 2013; Oh and Rugman, 2012).

CONCLUSIONS

In this study, we examine firm-specific advantages (FSAs), country-specific advantages (CSAs), and region-specific advantages (RSAs) of Thai MNEs. We show that Thai firms rely on home country CSAs rather than FSAs, and they can improve their competitiveness by

accessing and utilizing ASEAN RSAs (i.e. CSAs of other member countries within a region thanks to increasing regional economic integration and cooperation).

Our major theoretical contribution is in advancing the concept of RSAs as a new important source of international competitiveness for firms and nations. Building on the conventional internalization theory that firms' international competitiveness stems from either an ownership of superior FSAs or access to superior home market CSAs, we extend its theoretical propositions by introducing an additional source of competitive advantage, the RSAs. We argue that in an increasingly multidimensional world of regional integration and cooperation firms can leverage an additional source of CSAs, those of the member countries in their regional integration. Increasing levels of economic integration and cooperation provides firms with access to a unique set of RSAs that would strengthen their competitiveness not just within the region but also with the rest of the world. This is particularly important for emerging markets and their national, intra-regional and inter-regional (global) competitiveness.

Furthermore, we develop a regional dual double diamond model to analyse regional competitiveness. Our theoretical development has significantly extended the double diamond model by Rugman and D'Cruz (1993) and Rugman and Verbeke (1993) which analyse Canada competitiveness in the context of the North America Free Trade Agreement (NAFTA); the generalized double diamond model to analyse the international competitiveness of Korea and Singapore (Moon et al., 1998); the dual double diamond model (Moon, 2006) and nine-factor double diamond model (Cho and Moon, 2000). These works overcome the inherent limitations of Porter's single diamond, which is not appropriate to analyse the national competitiveness of small open economies due to its lack of international focus, non-consideration of the role of MNEs and the important distinction between physical and human factor conditions. The increasing trade and economic liberalisation allow firms

and countries, especially small open economies, to benefit from international competitiveness. Therefore, the country competitiveness should be based not only on their home country CSAs but also on RSAs as we demonstrate in our study.

IMPLICATIONS FOR PRACTICE AND POLICY

Our study provides important implications for managerial practice and government policy. The findings in this study endorse the argument that the ASEAN RSAs should be treated as home-country CSAs for Thailand. Thai firms can benefit even more from regional competitiveness thanks to a deeper economic integration with the move to AEC as of December 31, 2015, which can increase economic power for all member countries. Firms will have access to a larger regional market, for both production factors and consumers, with promising business opportunities providing both larger scale (enhancing further the low cost strategies via larger economies of scale) and bigger scope (facilitating development of NLB FSAs via product/service diversification and sophistication); utilisation of larger pools of unskilled and skilled labour due to the free labour mobility; access to more advanced technology and knowledge via collaborative partnerships and collocation in more advanced clusters in the region; free capital flows should enable better capital mobility across the member countries. The increased economic integration would also enable institutional development providing eventually more homogeneous and stable region. Furthermore, all of these developments would give Thai firms stronger competitive advantages over their competitors beyond the ASEAN borders. Foreign investors from outside the ASEAN may also find Thailand to be a more favourable FDI destination within the ASEAN due to its better than the average regional competitiveness.

However, the increased integration and liberalisation within the ASEAN will also create stronger rivalry among firms from member countries and more intensified competition for access to production factors as well as consumer markets, knowledge, and capital. This could

potentially be a threat for firms, which have historically operated, in a protectionist institutional environment, such as that of Thailand.

Thai firms are well positioned to offset this threat by leveraging the stronger national competitiveness of Thailand vis-à-vis the ASEAN regional average. They should aim for up-scaling their LB FSAs and developing NLB FSAs to enable them to move up in the regional and global value chains. According to the survey findings our sample of Thai firms is already making significant investment in technology development; the average R&D spent of 2.5 percent in our survey sample is at par with the largest Asian firms in the Fortune Global 500 (Rugman and Oh, 2008). However, the marketing intensity of 1 percent in our sample is well below the average of 15 percent in the Fortune Global 500 sample, indicating a definite area for improvement.

Furthermore, the access to the evolving RSAs as well as the increasing competition within ASEAN should provide Thai firms with the opportunity to build and strengthen their FSAs that they can then leverage outside the ASEAN. Our sample already indicates that Thai firms with more inter-regional orientation may potentially have better performance outcomes.

Government policy would also have to adjust to the increased regional integration and the institutional obligations that come with it. Alignment with the ASEAN agreements will see the end of the protectionist policies and require a shift to a role of support and facilitation in developing the competitiveness at both national and firm level. The government could play a major role in encouraging and supporting Thai firms in internationalization, developing technology, innovation, and attracting FDI to create sustainable competitive advantages in the long term. Targeted skills development policies, cluster formation and infrastructure development via public-private partnerships are some of the potential ways forward.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Our study has several limitations, which might open avenues for future research. We focus on Thailand and Thai firms. We suggest that a comparative study between Thailand and other member countries in the ASEAN region will provide interesting insights into the linkages between FSAs, CSAs and RSAs. Our survey has been conducted in 2012 before the AEC becomes fully effective by December 31, 2015. We suggest that a longitudinal study will offer an opportunity to assess whether the AEC will indeed be beneficial for its members. Such research will provide insights on how firms and member countries across the ASEAN region leverage these new business opportunities.

It should be noted that the ASEAN region is not a homogenous group of countries, as there are developed (e.g. Singapore) and developing countries within the ASEAN. The differences in institutional environments between the strongest country and other members will affect the ability of firms from other countries to exploit the potentials in the strongest country. In addition, networks between countries (political, economic, social, cultural, etc.) might create challenges for firms from different ASEAN member countries to access the potentials of the strongest member country.

We acknowledge the limitations of our regional dual double diamond models of the average and the strongest index. They can help firms to find better opportunities and potentials within the region. However, the ability to access and exploit these opportunities will be highly affected by other internal and external factors, such as firms' international experience and the entrepreneurship of top management team in internationalization and home-country government policies and support. We suggest that future research examining how different market characteristics and institutional environments of member countries affect firms' ability to benefit from RSAs will be interesting.

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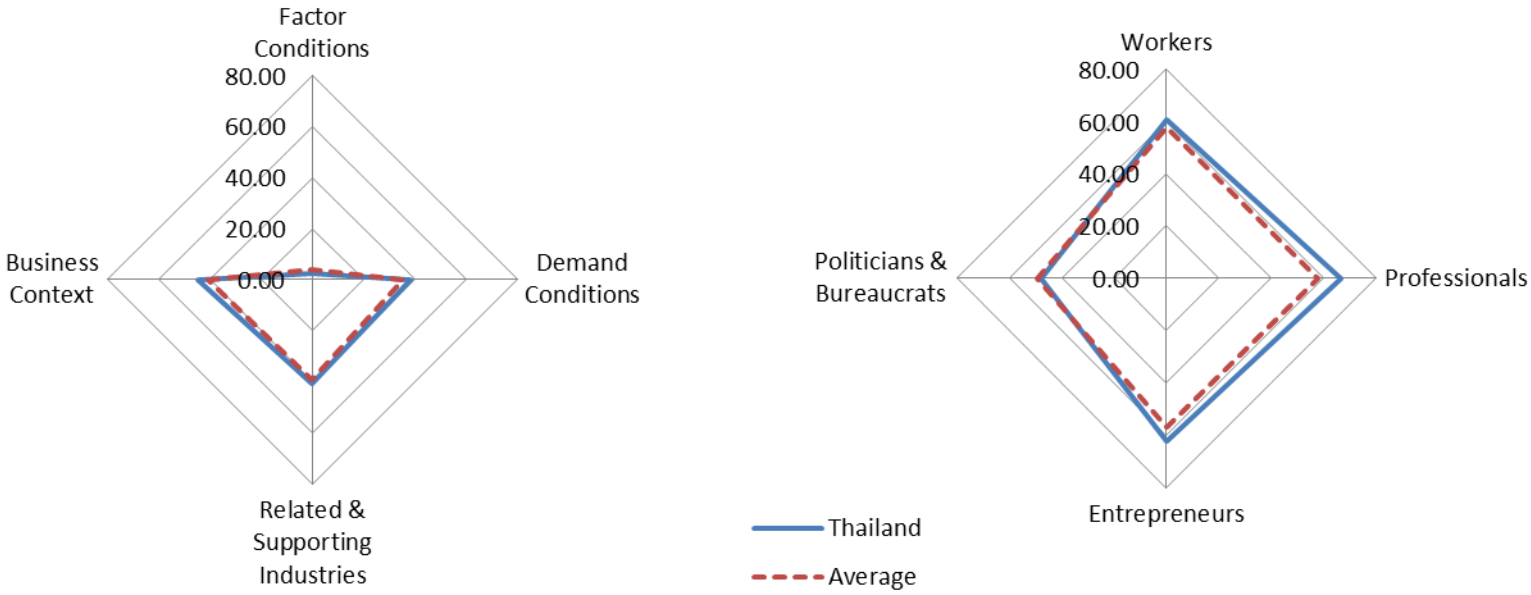
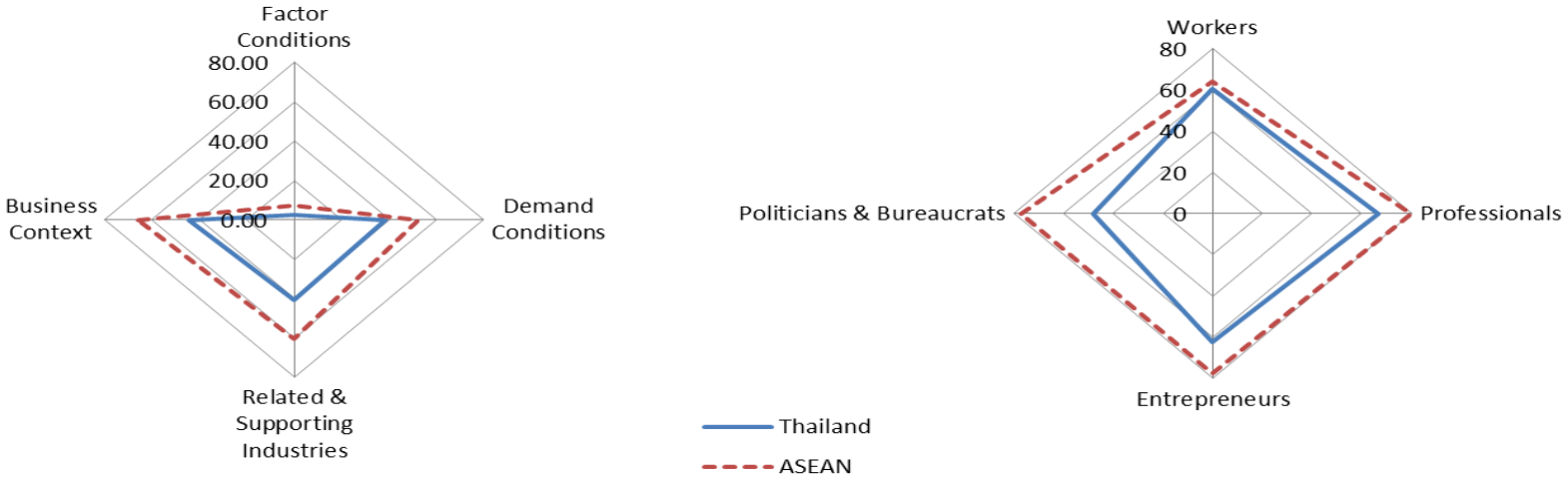
Figure 1: Thailand diamond relative to the average index of the ASEAN diamond (average of 2006-2010)



Physical Factors	Thailand	Average
Factor Conditions	2.67	3.76
Demand Conditions	38.38	35.45
Related & Supporting Industries	40.49	39.07
Business Context	44.59	40.61

Human Factors	Thailand	Average
Workers	60.75	57.60
Professionals	66.79	57.94
Entrepreneurs	62.23	56.82
Politicians & Bureaucrats	47.90	49.21

Figure 2: Thailand diamond relative to the strongest index of the ASEAN diamond (average of 2006-2010)



Physical Factors	Thailand	ASEAN	
Factor Conditions	2.67	7.23	(Indonesia)
Demand Conditions	38.38	52.03	(Singapore)
Related & Supporting Industries	40.49	60.22	(Singapore)
Business Context	44.59	65.53	(Singapore)

Human Factors	Thailand	ASEAN	
Workers	60.75	63.98	(Philippines)
Professionals	66.79	79.91	(Singapore)
Entrepreneurs	62.23	77.59	(Singapore)
Politicians & Bureaucrats	47.90	77.26	(Singapore)

Note: Countries in parentheses are the strongest countries in ASEAN

Table 1: IPS data relative to survey data

National Competitiveness Factors	Survey		IPS		
	Thailand	ASEAN	Thailand	ASEAN average	ASEAN strongest
	(1)	(2)	(3)	(4)	(5)
1. Factor Conditions	4.95	4.44	2.61	3.34	4.81
2. Demand Conditions	4.88	4.79	4.39	4.18	6.69
3. Related and Supporting Industries	5.09	4.38	3.66	3.34	6.58
4. Business Context	5.42	5.12	4.28	3.45	7.00
5. Workers	4.37	4.06	5.96	4.81	6.79
6. Professionals	5.46	4.63	5.12	3.87	7.00
7. Entrepreneurs	5.26	5.04	5.01	4.28	6.69
8. Politicians and Bureaucrats	4.68	4.77	3.45	4.18	7.00

Sources: IPS Korea (secondary data); authors' survey data and calculation

Table 2: Geographic distribution of sales

Sales by geographic regions	Percent of total sales
Home country (Thailand)	56
ASEAN	16
Rest of Asia Pacific	16
Subtotal: Home region sales in the Asia Pacific	**88**
Europe	6
North America	4
Rest of the World	2
Subtotal: Outside home region sales	**12**

Sources: Authors' survey data

Appendix 1: IPS Statistical Tables

1. Factor Conditions
1.1 Energy Resources
1.1.1.a Oil production (Market share (%))
1.1.1.b Oil production (Barrels per person (per year))
1.1.2.a Natural gas production (Market share (%))
1.1.2.b Natural gas production (Cubic meters per capita)
1.1.3.a Coal production (Market share (%))
1.1.3.b Coal production (Tons per capita)
1.2 Other Resources
1.2.1.a Round wood production (Market share (%))
1.2.1.b Round wood production (Cubic meters per capita)
1.2.2.a Sawn wood production (Market share (%))
1.2.2.b Sawn wood production (Cubic meters per capita)
1.2.3 Livestock (1,000 head)
1.2.4 Fish catches (Thousand metric tons)
1.2.5.a Land area (1,000 Ha)
1.2.5.b Land area (Ha per capita)
1.2.6 Pig iron and crude steel production (Market share (%))
1.2.7 Aluminum production (Market share (%))
1.2.8 Cement production (Market share (%))
1.2.9 Fabrics' production (Market share (%))
1.2.10 Freshwater resources (Cubic meters per capita)
2. Demand Conditions
2.1 Demand Size
2.1.1.a GDP (US$ billion)
2.1.1.b GDP growth index (GDP x GDP growth rate)
2.1.2.a GDP per capita (US$)
2.1.2.b GDP per capita growth index (GDP per capita x GDP per capita growth rate)
2.1.3 Trade account balance (US$ million)
2.1.4 Current account balance (US$ million)
2.1.5 Goods: export (US$ million)
2.1.6 Goods: import (US$ million)
2.1.7 Services: credit (US$ million)
2.1.8 Services: debit (US$ million)
2.1.9 Trade openness (Exp + Imp)/(GDP x 2)
2.1.10 Service openness (Credit + Debit)/(GDP x 2)
2.2 Demand Quality
2.2.1 Consumer sophistication: information
2.2.2 Consumer sophistication: quality
2.2.3 Consumer sophistication: price
2.2.4 Consumer sophistication: brands
2.2.5 Consumer sophistication: design
2.2.6 Consumer sophistication: new products
2.2.7 Consumer sophistication on health and environmental issue

2.2.8	Consumer sophistication on IPR (Intellectual Property Right)
3. Related and Supporting Industries	
3.1 Transportation	
3.1.1	Paved road density (% of total roads)
3.1.2	Vehicles (Per 1,000 people)
3.1.3.a	Railway transport (Million passenger-km)
3.1.3.b	Railway transport (Million freight ton-km)
3.1.4.a	Civil aviation (1,000 passenger-km)
3.1.4.b	Civil aviation (Million freight ton-km)
3.1.5	Maritime transport (Container port traffic (TEU: 20 foot equivalent units))
3.1.6	International travel (1,000 people)
3.1.7	International transportation
3.2 Communication	
3.2.1	Telephone mainlines (Per 100 people)
3.2.2	Mobile phone subscribers (Per 100 people)
3.2.3	Personal computers (Per 100 people)
3.2.4	Internet hosts (Per 10,000 people)
3.2.5	Internet users (Per 100 people)
3.2.6	Annual investment in telecommunication (US$ million)
3.2.7	E-business
3.2.8	E-readiness score (Score)
3.2.9	International voice traffic (Minutes per person)
3.2.10	International communication
3.2.11	Cyber international trade
3.3 Finance	
3.3.1	Capital value (1 - Inflation rate)
3.3.2	Capital accessibility (1 - Interest rate (lending rate))
3.3.3	Exchange rate stability (1- Annual change of exchange rate against US$)
3.3.4.a	Gross domestic savings (US$ billion)
3.3.4.b	Gross domestic savings (% of GDP)
3.3.5.a	Gross domestic investment (US$ billion)
3.3.5.b	Gross domestic investment (% of GDP)
3.3.6.a	International reserves (US$ million)
3.3.6.b	International reserves to imports (ratio vis-á-vis volume of average monthly import)
3.3.7	Access to loans
3.3.8	Venture capital availability
3.3.9	Credit by banking sectors (% of GDP)
3.3.10	Financial risk rating (Score)
3.3.11	Financial market sophistication
3.3.12	Financial institution's transparency
3.3.13	Stock market capitalization (% of GDP)
3.3.14	Value traded on stock markets (% of GDP)
3.3.15	Stock market
3.3.16	International capital flow
3.3.17	Country credit rating (Score)

3.4 Education

3.4.1 Public spending on education (% of GDP)
3.4.2 Pupils per teacher (Primary school (Rate))
3.4.3 Students per teacher (Secondary school (Rate))
3.4.4 Educational system
3.4.5 Secondary enrollment rate (%)
3.4.6 Tertiary enrollment rate (%)
3.4.7 English education
3.4.8 IT training & education
3.4.9 Public schools
3.4.10 Competitiveness of education market

3.5 Science & Technology

3.5.1 Scientists & engineers (Per million people)
3.5.2 Scientific research institutions
3.5.3 Total expenditure on R&D (% of GDP)
3.5.4 Government expenditure on R&D (% of GDP)
3.5.5 Business expenditure on R&D (% of GDP)
3.5.6 Information technology (IT)
3.5.7 New high-technology industries (e.g., nano, bio, opto technology etc.)
3.5.8 Patent applications (Actual number of total patent applications)
3.5.9 Patents granted (Actual number of total patents granted)

3.6 Cluster Development

3.6.1 Local supplier quantity
3.6.2 Local supplier quality
3.6.3 Extent of collaboration among clusters

3.7 Overall Living Environment

3.7.1 Human development index (HDI value)
3.7.2.a Tourism receipts from abroad (US$ million)
3.7.2.b Tourism receipts from abroad (% of GDP)
3.7.3 Personal security (e.g., crime)
3.7.4 Social safety net
3.7.5 Medical service
3.7.6 Political risk
3.7.7 Quality of life
3.7.8 Globalization
3.7.9 National culture
3.7.10 Public order
3.7.11 Innovativeness & creativity
3.7.12 Job description & individual roles
3.7.13 Rewards

4. Business Context

4.1 Strategy & Structure

4.1.1 Firm's decision process
4.1.2 Firm strategy
4.1.3 Corporate governance
4.1.4 Firm restructuring

4.1.5 Rivalry
4.2 Global Mindset
4.2.1 Global standards
4.2.2 International changes
4.2.3 International competition
4.2.4 International brands
4.2.5 Equal treatment
4.3 Business Culture
4.3.1 Shared value
4.3.2 The relationship between labor and management
4.3.3 Ethical practices (e.g., transparent and sound management)
4.3.4 Insider trading
4.3.5 Corruption perceptions index (Score)
4.3.6 Health, safety & environmental concerns
4.3.7 Social responsibility
4.4 Foreign Investment
4.4.1.a FDI outward, stock (US$ billion)
4.4.1.b FDI outward, stock (% of GDP)
4.4.2.a FDI inward, stock (US$ billion)
4.4.2.b FDI inward, stock (% of GDP)
4.4.3.a FDI outward, flow (US$ billion)
4.4.3.b FDI outward, flow (% of GDP)
4.4.4.a FDI inward, flow (US$ billion)
4.4.4.b FDI inward, flow (% of GDP)
4.4.5.a FDI openness, stock ((FDIo + FDIi)/(GDP x 2))
4.4.5.b FDI openness, flow ((FDIo + FDIi)/(GDP x 2))
4.4.6.a Portfolio openness, stock ((PORTo + PORTi)/(GDP x 2))
4.4.6.b Portfolio openness, flow ((PORTo + PORTi)/(GDP x 2))
5. (Unskilled) Workers
5.1 Quantity of Labor Force
5.1.1 Population (Million people)
5.1.2 Labor force (1,000 people)
5.1.3 Life expectancy at birth (Years)
5.1.4 Employment rate (1 - Unemployment rate)
5.1.5 Working hours (Per week)
5.1.6 Monthly compensation for manufacturing workers (Monthly salary (US$))
5.1.7 Wage
5.1.8.a Output-input index (GDP per hour worked (Constant 1997 US$ at PPP))
5.1.8.b Output-input index (GDP growth rate–wage growth rate (%))
5.1.9 Productivity
5.2 Quality of Labor Force
5.2.1 Literacy rate (%)
5.2.2 Labor dispute (Working days lost per 1,000 inhabitants per year)
5.2.3 Attitude & motivation
5.2.4 Education
5.2.5 The openness of labor market

5.2.6 Labor unions
6. Professionals
6.1. Personal Competence
6.1.1 Professional's education level
6.1.2 Professional manager's international experience
6.1.3 Professional's international experience
6.1.4 Decision making
6.1.5 The ability to manage opportunities
6.1.6 The professional manager's core competences (e.g., initiative, drive, leadership etc.)
6.1.7 Professional's competitiveness
6.2. Social Context
6.2.1 Availability of professionals
6.2.2 Professional manager's compensation
6.2.3 Professional's compensation
6.2.4 Professional's pride
6.2.5 Professional job's openness
6.2.6 Leaders of society
7. Entrepreneurs
7.1. Personal Competence
7.1.1 Decision making
7.1.2 The ability to seize opportunities
7.1.3 The entrepreneur's core competence
7.1.4 Entrepreneur's education level
7.1.5 Entrepreneur's international experience
7.1.6 Entrepreneur's competitiveness
7.2. Social Context
7.2.1 Availability of entrepreneurs
7.2.2 New business
7.2.3 New ideas
7.2.4 Foreign entrepreneurs
7.2.5 Leaders of society
8. Politicians and Bureaucrats
8.1 Politicians
8.1.1 The legal framework
8.1.2 The legislative activity of the parliament
8.1.3 The political system
8.1.4 Leaders of society
8.1.5 Education level
8.1.6 International experience
8.1.7 Bribery & corruption
8.2. Bureaucrats
8.2.1 Gini Index (Score)
8.2.2 Foreign investment promotion policy (Inward + outward)
8.2.3 Government decisions & policy implementations

Appendix 2: Questionnaire survey instrument

Has your company been actively involved in international trade over the last 5 years?

___ **YES**, please proceed and answer all of the questions

___ **NO**, please send an e-mail us with a subject line : NOT RELEVANT

Thank you for your valuable time and cooperation

PART I : COMPANY ACTIVITIES

1. **In 2010, what were your total advertising expenses as a percentage of total sales?** (You can choose only one)

☐ None ☐ Less than 1% ☐ 1 – 5%

☐ 6 – 10% ☐ 11 – 15% ☐ more than 15%

2. **In 2010, what were your total R&D expenses as a percentage of total sales?** (You can choose only one)

☐ None ☐ Less than 2.5% ☐ 2.5 – 5.0%

☐ 5.1 –7.5% ☐ 7.6 – 10% ☐ more than 10%

3. **Which market entry modes does your company use to enter foreign markets?** (You can choose only one)

☐ Only Exporting ☐ Only Foreign Direct Investment (please skip to question 8)

☐ Both Exporting and Foreign Direct Investment

Note: *Foreign Direct Investment means investing equity in foreign country in order to establish operations there (e.g. manufacturing, sales, marketing, distribution channel, services)*

EXPORTING

4. **How long has your company been exporting?** _____years

5. **How many countries does your company currently export to?**
   _____countries

6. **In 2010, approximately what percentage of your total annual sales was from export?**
   _____%

7. **In 2010, approximately what was the percentage share of your total export sales by region?**

   (Please note that the sum of the % by region should add up to 100% of your total export sales)

   _____% ASEAN

   _____% Asia and Pacific (except ASEAN)

   _____% Europe

   _____% North America

   _____% Central and South America

   _____% Africa

   100 % Total Export Sales

FOREIGN DIRECT INVESTMENT (FDI): (If your company does not have FDI, please skip to Question 12)

8. **How long has your company been doing FDI?** _____years

9. **How many countries does your company currently have FDI in?**
   _____countries

10. **In 2010, approximately what percentage of your total annual sales was from FDI?**
    _____%

11. **In 2010, approximately what was the percentage share of your total FDI sales by region?**

    (Please note that the sum of the % by region should add up to 100% of your total FDI sales)

    _____% ASEAN

    _____% Asia and Pacific (except ASEAN)

    _____% Europe

    _____% North America

    _____% Central and South America

    _____% Africa

100 % **Total Foreign Direct Sales**

PART II : MEASUREMENT OF COMPANY RESOURCES

12. Please indicate the extent to which you agree with each of the following statements.
(1 = Strongly disagree, 7 = Strongly agree)

In your company the top management has : *(* Top management means top manager up to Managing Director)*	①	②	③	④	⑤	⑥	⑦
a. A strong commitment to international activities	☐	☐	☐	☐	☐	☐	☐
b. A proficiency in foreign language	☐	☐	☐	☐	☐	☐	☐
c. A significant experience in international activities	☐	☐	☐	☐	☐	☐	☐
d. Differentiated core competences in term of initiative, drivers, and leadership in international context	☐	☐	☐	☐	☐	☐	☐
e. An ability to respond to changing market conditions	☐	☐	☐	☐	☐	☐	☐
f. Swift and precise decision making	☐	☐	☐	☐	☐	☐	☐
g. A good ability to seize international opportunity	☐	☐	☐	☐	☐	☐	☐
h. A good capability to manage international opportunity	☐	☐	☐	☐	☐	☐	☐
i. Flexibility in decision making regarding changing environments	☐	☐	☐	☐	☐	☐	☐
j. An ability to adjust to external challenges	☐	☐	☐	☐	☐	☐	☐
k. An ability to overcome export barrier	☐	☐	☐	☐	☐	☐	☐

13. Please indicate the extent to which you agree with each of the following statements.
(1 = Strongly disagree , 7 = Strongly agree)

Your company :	①	②	③	④	⑤	⑥	⑦
a. Uses a modern technology and equipment	☐	☐	☐	☐	☐	☐	☐
b. Has strong leadership in technology	☐	☐	☐	☐	☐	☐	☐
c. Has technology which is difficult to imitate	☐	☐	☐	☐	☐	☐	☐
d. Has introduced at least one new product/service in the last two years	☐	☐	☐	☐	☐	☐	☐
e. Acquires new technology	☐	☐	☐	☐	☐	☐	☐
f. Develops technology by investing in R&D	☐	☐	☐	☐	☐	☐	☐
g. Meets customer specifications and requirements	☐	☐	☐	☐	☐	☐	☐
h. Adopts new method and concepts in the manufacturing/service process	☐	☐	☐	☐	☐	☐	☐
i. Provides consistent quality of your products/services	☐	☐	☐	☐	☐	☐	☐

PART III : MEASUREMENT OF COUNTRY AND REGION RESOURCES

14. Please indicate the availability of the following factors for your company in Thailand
(1 = Very low , 7 = Very high)

	①	②	③	④	⑤	⑥	⑦
a. Quantity of raw material	☐	☐	☐	☐	☐	☐	☐
b. Quality of raw material	☐	☐	☐	☐	☐	☐	☐
c. Cost of raw material	☐	☐	☐	☐	☐	☐	☐
d. Technology	☐	☐	☐	☐	☐	☐	☐
e. Quantity of Skilled labour	☐	☐	☐	☐	☐	☐	☐
f. Quality of Skilled labour	☐	☐	☐	☐	☐	☐	☐

g. Cost of Skilled labour	☐	☐	☐	☐	☐	☐	☐
h. Quantity of Unskilled labour	☐	☐	☐	☐	☐	☐	☐
i. Quality of Unskilled labour	☐	☐	☐	☐	☐	☐	☐
j. Cost of Unskilled labour	☐	☐	☐	☐	☐	☐	☐
k. Financial resources	☐	☐	☐	☐	☐	☐	☐
l. Quantity of customer	☐	☐	☐	☐	☐	☐	☐
m. Quantity of sophisticated Customer	☐	☐	☐	☐	☐	☐	☐
n. Size of related and supporting industries	☐	☐	☐	☐	☐	☐	☐
o. Information sharing within industries	☐	☐	☐	☐	☐	☐	☐
p. Supplier quantity	☐	☐	☐	☐	☐	☐	☐
q. Supplier quality	☐	☐	☐	☐	☐	☐	☐
r. Infrastructure	☐	☐	☐	☐	☐	☐	☐
s. Strength of competitors	☐	☐	☐	☐	☐	☐	☐
t. Level of competition	☐	☐	☐	☐	☐	☐	☐
u. Collaboration in the clusters is extensive and intensive among suppliers, customers, and research institutions	☐	☐	☐	☐	☐	☐	☐
v. Rivalry among companies	☐	☐	☐	☐	☐	☐	☐

15. Please indicate the availability of the following factors for your company in <u>Thailand</u>

(1 = Very low , 7 = Very high)

	①	②	③	④	⑤	⑥	⑦
a. Grants/Subsidiaries	☐	☐	☐	☐	☐	☐	☐
b. Training support	☐	☐	☐	☐	☐	☐	☐
c. Free trade policies	☐	☐	☐	☐	☐	☐	☐
d. Tax incentives	☐	☐	☐	☐	☐	☐	☐
e. Import duty exemption	☐	☐	☐	☐	☐	☐	☐
f. Economic growth	☐	☐	☐	☐	☐	☐	☐
g. Political stability	☐	☐	☐	☐	☐	☐	☐
h. Development of technology	☐	☐	☐	☐	☐	☐	☐

16. Please indicate the availability of the following factors for your company in <u>ASEAN</u>

** **ASEAN** (Vietnam, Laos, Myanmar, Cambodia, Malaysia, Indonesia, Singapore, Philippines, and Brunei Darussalam)*

(*1 = Very low , 7 = Very high*)

	①	②	③	④	⑤	⑥	⑦
a. Quantity of raw material	☐	☐	☐	☐	☐	☐	☐
b. Quality of raw material	☐	☐	☐	☐	☐	☐	☐
c. Cost of raw material	☐	☐	☐	☐	☐	☐	☐
d. Technology	☐	☐	☐	☐	☐	☐	☐
e. Quantity of Skilled labour Skilled labour	☐	☐	☐	☐	☐	☐	☐
f. Quality of Skilled labour	☐	☐	☐	☐	☐	☐	☐
g. Cost of Skilled labour	☐	☐	☐	☐	☐	☐	☐
h. Quantity of Unskilled labour	☐	☐	☐	☐	☐	☐	☐
i. Quality of Unskilled labour	☐	☐	☐	☐	☐	☐	☐

j. Cost of Unskilled labour	☐	☐	☐	☐	☐	☐	☐
k. Financial resources	☐	☐	☐	☐	☐	☐	☐
l. Quantity of customer	☐	☐	☐	☐	☐	☐	☐
m. Quantity of Sophisticated Customer	☐	☐	☐	☐	☐	☐	☐
n. Size of related and supporting industries	☐	☐	☐	☐	☐	☐	☐
o. Information sharing within industries	☐	☐	☐	☐	☐	☐	☐
p. Supplier quantity	☐	☐	☐	☐	☐	☐	☐
q. Supplier quality	☐	☐	☐	☐	☐	☐	☐
r. Infrastructure	☐	☐	☐	☐	☐	☐	☐
s. Strength of competitors	☐	☐	☐	☐	☐	☐	☐
t. Level of competition	☐	☐	☐	☐	☐	☐	☐
u. Collaboration in the clusters is extensive and intensive among suppliers, customers, and research institutions	☐	☐	☐	☐	☐	☐	☐
v. Rivalry among companies	☐	☐	☐	☐	☐	☐	☐

17. Please indicate the availability of the following factors for your company in <u>ASEAN</u>
(*1 = Very low , 7 = Very high*)

	①	②	③	④	⑤	⑥	⑦
a. Grants/Subsidiaries	☐	☐	☐	☐	☐	☐	☐
b. Training support	☐	☐	☐	☐	☐	☐	☐
c. Free trade policies	☐	☐	☐	☐	☐	☐	☐
d. Tax incentives	☐	☐	☐	☐	☐	☐	☐
e. Import duty exemption	☐	☐	☐	☐	☐	☐	☐
f. Economic growth	☐	☐	☐	☐	☐	☐	☐
g. Political stability	☐	☐	☐	☐	☐	☐	☐
h. Development of technology	☐	☐	☐	☐	☐	☐	☐

Thank you for your valuable time and cooperation. Your kind assistance in providing this information is highly appreciated. If there is anything else you would like to tell us about any unique qualifications that make your company different from competitors or about this survey, please do so in the space provided below: