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Interlocking Directorates as Corporate Governance in Third World Multinationals: Theory and Evidence from Thailand

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Abstract. Given the paucity of corporate governance research on Third World multinational enterprises (MNEs), we provide an exploratory description of the patterns of interlocking directorates as corporate governance in Thailand-based MNEs in this study. Specifically, we raise a key question: Do the interlocks network attributes and individual board directors of MNEs differ systematically from those of non-MNEs? Drawing upon resource dependence theory, we hypothesize that, compared with non-MNEs, MNEs in Thailand (1) have more densely connected interlocks, (2) occupy more central locations in the interlocks network, (3) have more ethnic Chinese directors, and (4) appoint more military directors. Data from the top 200 listed firms in Thailand support three of the four hypotheses, and suggest a number of implications and future research directions.

1. Introduction

Globalization of the world economy and rapid development of the Third World have prompted many companies in developing countries to become multinational enterprises (MNEs). However, compared with the voluminous research on MNEs from developed countries (Caves, 1996; Dunning, 1993), scholarly understanding of MNEs from the developing world is limited (Lall, 1983; Wells, 1983, 1998). Moreover, within the small literature on "Third World MNEs," most attention has been given to their investment size, entry strategy, and parent-subsidiary relationship (Lecraw, 1993; Pangarkar, 1998; Yeung, 1994), and little is known about their corporate governance (Hamilton, 1996). Put bluntly, "virtually nothing is known about governance practices" in regions outside of North America, Europe, and Japan (Boyd, Carroll, and Howard, 1996: 205). Because developed and developing countries differ profoundly in institutional contexts in which corporate governance is embedded (Au, Peng, and Wang, 2000; Claessens, Djankov, and Lang, 2000; Gedajlovic and Shapiro, 1998; Li, 1994; Pederson and Thomsen, 1997; Peng, 2000), lack of knowledge about corporate

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governance of MNEs from developing countries constitutes a serious deficiency in our understanding of these emerging MNEs.

In order to partially fill the gap, this article reports an exploratory study which sheds light on the patterns of corporate governance of MNEs from a major developing economy, Thailand. While corporate governance can be studied in a number of ways, we follow a long line of established research tradition to focus on interlocking directorates. An interlocking directorate occurs "when one person affiliated with one organization sits on the board of directors of another organization" (Mizruchi, 1996: 271). Exploring interlocking directorates allows researchers to "map" out the interorganizational network of corporate governance. In this article, we draw on resource dependence theory to view board directors as important boundary spanners who link the organization with the external environment (Pennings, 1980; Pfeffer and Salancik, 1978). Specifically, we focus on (1) the attributes of Thailand-based MNEs' interlocking directorates' network, and (2) the contribution that certain board directors make to these MNEs' linkages with the environment. Using published archival data on the top 200 publicly listed firms in Thailand, we compare and contrast the network attributes and individual directors of the MNEs vis-a-vis those of the non-MNEs. The goal is to answer a key question: Do the interlocks network attributes and individual board directors of MNEs differ systematically from those of non-MNEs?

Three compelling theoretical, methodological, and empirical reasons motivate this research. First, resource dependence *theory* suggests that since multinational expansion may require more resources than domestic operations and that interlocking directorates may allow firms to tap into some of these resources, MNEs are likely to have more dense interlocks networks, more central locations in these networks, and more powerful and resourceful board directors. Although interlocking directorates, with over four decades of sustained research, have become "perhaps the most studied social structure in organization theory" (Davis and Greve, 1997: 12), much of this knowledge comes from research on developed economies. Whether the theoretical predictions outlined above can be supported in emerging economies thus remains to be seen.

Second, *methodologically*, interlocks research relies on relatively easy-to-access, large-sample archival data and rigorous quantitative methods to generate results that are replicable and falsifiable (Scott, 1991). In contrast, most existing work on Third World MNEs in general, and on Thailand-based firms in particular, utilizes interview and survey methods (Appold, Siengthai, and Kasarda, 1998; Butler, Brown, and Chamornmarn, 1998; Pananond and Zeithaml, 1998; Powpaka, 1998; Pyatt, 1996). Although very insightful, their results tend to be less generalizeable given the inherent limitation of the hard-to-replicate survey and interview data (Pangarkar, 1998: 110).

Finally, recent events suggest that firms in Thailand, while historically under-researched, deserves more *empirical* attention. Although most existing research on MNEs from developing Asia focuses on firms based in Hong Kong, India, Korea, Singapore, and Taiwan (Lall, 1983; Lecraw, 1993; Yeung, 1994), some MNEs from Thailand have been surprisingly active overseas. For example, in the world's largest emerging economy, China, a multinational from Thailand, the C. P. Group, was *the* single largest foreign investor throughout the 1990s (Pananond and Zeithaml, 1998). Moreover, it is the unexpected meltdown of

the Thai economy in July 1997 which triggered the entire chain reactions of the Asian financial crisis (Phongpaichit and Baker, 1998; Woodall, 1998). These events indicate that empirically, we still know very little about Thai firms, and that much more knowledge on them is needed (*South China Morning Post*, 2000). In sum, while we performed our research in Thailand, our concerns are theoretical. The remainder of the article begins with a discussion of the theoretical background, followed by hypotheses, methods, and findings.

2. Resource dependence and internationalization

Resource dependence theory suggests that organizations' survival and success are contingent on their ability to control the flow of resources (Pfeffer and Salancik, 1978). It focuses on strategic actions undertaken by organizations to manage interdependencies with other organizations in the environment, and treats interorganizational relations as the basic unit of analysis (Aldrich, 1999: 62). Some interdependencies are sought (or avoided) because of the power and control possibilities inherent in them. One aspect of such interorganizational relations is the development of interlocking directorates (Burt, 1992; Pennings, 1980). This theory views board directors as important boundary spanners that link with the environment and extract resources for successful operations, and predicts that in an uncertain environment, firms will use board interlocks to achieve better coordination with other organizations and reduce uncertainty. These predictions have been supported by a large body of empirical research in the West (Mizruchi, 1996).

In the case of internationalization, two kinds of larger firms are likely to venture abroad. The first group is leading firms with a dominant domestic market share positions which try to leverage their advantage abroad (Caves, 1996; Dunning, 1993; Vernon, 1998). The second group is follower firms with a medium market share at home which seek to avoid head-on competition with the larger firms in the home country and seek growth overseas (Ito, 1997). The stage theory of internationalization suggests that these two kinds of firms from a developing country such as Thailand are likely to go through several stages of incremental development, progressing from initial exploration of foreign markets to more committed overseas operations (Johanson and Vahlne, 1977, 1990).[1] During the early stages, the barriers to overcome in a new and uncertain environment are tremendous (Luo and Peng, 1999). It follows, then, that these new MNEs may have an incentive to attempt to control the flow of resources by creating, developing, and strengthening board interlocks with other crucial organizations. These resources may include lining up suppliers and finances that directly support multinational expansion, and protecting and strengthening domestic markets that can generate profits to fund foreign activities. Therefore, we argue that, compared with firms that focus exclusively on domestic operations, (1) MNEs will be in a more advantageous position in their network of interlocking directorates that allows MNEs to gain access to better and more abundant resources, and (2) MNEs will employ more powerful and resourceful directors on the board in order to create better linkages with the environment. Embedded in the institutional context of the Thai economy, these arguments will be developed in more detail in the next two sections.

3. Network attributes

While there are a large number of network attributes that interlocks researchers have explored, we will focus on two of the most commonly studied attributes: density and centrality.

Density

In social network analysis, *density* refers to the extent to which all possible relations are actually present (Scott, 1991). Operationally, it is the number of observed interlocks among all possible links. According to resource dependence theory, interlocking directorates offer organizations three key advantages. First, interlocks provide information to be exchanged (Pfeffer and Salancik, 1978). Outside directors have access to a firm's proprietary data, are apprised of important investment proposals, and are able to bring their experience to bear on strategic problems. Second, interlocks allow one organization regular input into other firms' decision making apparatus, thus asserting power and influence (Mintz and Schwartz, 1985). Finally, interlocks enable firms to coopt sources of environmental uncertainty and stabilize transaction relationships (Pennings, 1980).

While Thailand has had a long history of absorbing foreign investment, Thailand-based firms have had a relatively short history of venturing abroad, dating back only to the 1970s (Pananond and Zeithaml, 1998: 174; Yeung, 1994: 24). There are several rationales that motivate some firms to become MNEs. First, some Thai firms have become large enough that the domestic economy no longer has enough room for all of them to grow (Ito, 1997). Since most Thai firms focused on labor-intensive production, inflation-induced rise in domestic labor costs in the 1980s and 1990s "pushed" a lot of them to look for low labor cost locations elsewhere (Yeung, 1994). Second, as suggested by internalization theory (Buckley and Casson, 1976; Caves, 1996), multinational expansion enables MNEs to integrate foreign operations in order to protect their proprietary investment, especially when the technological level of some Thai firms rose from low- to medium-technology (Phongpaichit and Baker, 1998: 34). Finally, changes in the international trade and investment regime further prompt certain firms to invest abroad. Most of Thailand-based MNEs invest in neighboring countries such as Burma, Cambodia, China, Laos, Malaysia, and Vietnam (Powpaka, 1998: 35; Yeung, 1994: 21–3). During the last two decades, there has been significant improvement in the investment environment in these countries, thus presenting a "pull" effect for Thailand-based firms (Makino and Beamish, 1998; Pananond and Zeithaml, 1998).

Despite the presence of both "push" and "pull" effects, not every firm is capable of becoming an MNE. It follows, then, that those firms that do become MNEs tend to be able to access more resources that allow them to venture abroad. In terms of their interlocking directorates, they are more likely to appoint—or *receive*—directors from other critical organizations. Such a higher level of density may lead to better access to and control of resources (Mizruchi, 1996). On the other hand, boards of directors also perform an important function signaling the reputation of a firm (Zajac and Westphal, 1996). By appointing directors with ties to other important organizations, the firm signals to its stakeholders, such as shareholders and buyers, that it is a legitimate enterprise worthy of support. Since home-grown MNEs are a relatively novel organizational form in the country and executives

affiliated with these MNEs symbolize power, prestige, and expertise, it is likely that these executives will be sought after to join other firms' boards. As a result, MNEs are also more likely to *send* their executives to other companies' boards. Regardless of the direction of these interlocks, the end result may be the same: MNEs' interlocking directorates networks are more densely connected, which may present better economic opportunities (Granovetter, 1985). In short:

> *Hypothesis 1. Compared with non-MNEs, MNEs have more densely connected interlocking directorates.*

Centrality

While the number of ties (density) is important, an actor's network *location*, i.e., how central it is within the network, is at least equally important (Burt, 1992). In social network analysis, a point of *centrality* refers to a point with "a large number of connections with the other points in its immediate environment" (Scott, 1991: 84). In this sense, the best connected points in a network can be regarded as its most central and pivotal points. A firm that is more centrally located in an interlocking network is expected to be able to accumulate significant power and influence (Mintz and Schwartz, 1985). Specifically, nonredundant ties in a central position of a network may give an actor advantage in tapping into what Burt (1992) called "structural holes," defined simply as discontinuities between exchange relations. These discontinuities represent "entrepreneurial opportunities to broker the flow of *information* between people on opposite sides of the structural hole, and control the *form* of projects that bring together people on opposite sides of the structural hole. The conclusion is that individuals with relations to otherwise disconnected social groups are positioned for entrepreneurial action" (Burt, 1997: 355, original emphasis).

In light of these theoretical arguments, we suggest that MNEs may occupy a more *central* position in the network of interlocking directorates among large firms in Thailand. Anecdotal observations seem to support to such reasoning. Among the top 200 listed firms in Thailand, MNEs tend to be larger, more powerful firms. While empirical evidence on corporate interlocks in Thailand was not available before we started this study, research in the United States (Burt, 1983; Mintz and Schwartz, 1985; Pennings, 1980), Canada (Gedajlovic and Shapiro, 1998; Richardson, 1987), Europe (Pederson and Thomsen, 1997; Stokman, Ziegler, and Scott, 1985), Japan (Gerlach, 1992), and Hong Kong (Au, Peng, and Wang, 2000) all suggested that larger firms tend to occupy more central positions within the network of interlocking directorates. Therefore, it is reasonable to suggest that MNEs in Thailand may follow the same path. Thus:

> *Hypothesis 2. Compared with non-MNEs, MNEs occupy more central positions in the interfirm network of interlocking directorates.*

In addition to these network attributes, which kind of directors these firms invite to join their board may also be crucial, which we turn to next.

4. Individual directors

Resource dependency and individual directors

Interlocks occur between organizations, but they are created by individuals. Particular directors may be appointed because of their organizational affiliations, individual capabilities, or a combination of both. Some directors may be chosen for their individual characteristics rather than for the organizations they represent (Zajac, 1988). As "resource-rich" individuals, outside directors bring to the focal organization valuable information, connections, and resources. However, the number of slots for outside directors is usually limited for Asian firms such as those based in Thailand, most of which are still controlled by the founding families[2] (Claessens et al., 2000; Redding, 1990). Therefore, these firms are not likely to invite a lot of outside directors to their boards. Moreover, beyond a threshold, board size may have a negative effect on firm performance, since large and diverse boards tend to have difficulties in reaching timely decisions (Goodstein, Gautam, and Boeker, 1994: 248; Zahra and Pearce, 1989: 315). As a result, firms may be particularly careful in inviting a small number of outside board members who are strategically placed in the interlocks networks to access critical resources. Thus, in addition to network attributes such as density and centrality of the interlocking linkages, what also matters is who the individual directors are. In Thailand, there are two prominent classes of directors, namely, those with an ethnic Chinese background and those with a military background.

The role of ethnic Chinese directors

Currently, there are approximately six million ethnic Chinese in Thailand, who represent 11% of the population and control over 80% of the listed companies, including most of Thailand's manufacturing, agribusiness, and banking firms (Australian Department of Foreign Affairs, 1995). It is common for senior executives in Thailand, who are the most likely candidates as board directors, to have an ethnic Chinese background. By the 1990s, with few exceptions, almost all ethnic Chinese in Thailand speak fluent Thai, have Thai citizenship (which requires at least ten years of residence), and have adopted surnames in Thai.[3] In order to distinguish these people from other ethnic Chinese without Thai citizenship, we will follow Pyatt (1996) to call the Thailand-based Chinese as "Thai Chinese," and ethnic Chinese from elsewhere as "other Chinese."

Since ethnic Chinese have a widely-known tendency to do business among themselves based on *guanxi* (connections) (Peng and Luo, 2000; Xin and Pearce, 1996), we argue that Thailand-based MNEs would have a tendency to invite other Chinese directors from countries such as China, Hong Kong, Singapore, and Taiwan. MNEs from these economies have made substantial investment in Thailand, and a large number of expatriate ethnic Chinese executives reside in the country. As MNEs from Thailand begin to expand abroad (mostly in Asia), they are likely to be interested in tapping into the connections and expertise of this group of "other Chinese" executives, who are well-connected in major Asian economies. It is precisely such reciprocal linkages among ethnic Chinese business people throughout Asia that gave rise to the term "Greater China" in the 1990s (Peng, Lu, Shenkar, and Wang, 2001).

Although sometimes Western and Japanese board members may be imposed as a condition of receiving loans and/or investments, we suggest that overall, Thailand-based MNEs, which are mostly controlled by ethnic Chinese in any case, may have a strong preference to appoint both Thai Chinese and other Chinese directors to their boards, as opposed to directors of other ethnic backgrounds. In short:

> *Hypothesis 3. Compared with non-MNEs, MNEs have more ethnic Chinese (Thai Chinese and other Chinese) directors on their boards.*

The role of military directors

A unique feature of Thailand's board directors is that a substantial number of them are active-duty or retired military officers, with their ranks, such as "general" and "admiral," listed in company publications. Although the military's influence has been reduced in recent years, Thailand's political structure still represents a "patrimonial state" (Phongpaichit and Baker, 1998: 244–5). Besides the royal family, the structure of political patronage in Thailand centers on the military.

The initial business-military link occurred in banking firms, which were run by the ethnic Chinese, in the turbulent 1950s when the government sought to limit the expansion of Chinese businesses (Pananond and Zeithaml, 1998: 169). As predicted by resource dependence theory (Pfeffer and Salancik, 1978), in an uncertain environment, organizations would seek to strengthen their ties with the environment in order to improve their chances of survival. While military directors can hardly bring any expertise or resources in an economic sense, they do provide important "political resources" (Boddewyn and Brewer, 1994) and "institutional capital" (Oliver, 1997) to firms that appoint them to the boards. While profiting from hefty directors' fee themselves, military directors can also use their clout to reduce intervention from the government and to land these firms lucrative contracts. In an environment whereby formal institutional protection for businesses, especially those run by the ethnic Chinese, is weak, ties with the military enables many firms to better cope with the environmental uncertainty (Peng and Luo, 2000). As a result, this practice was quickly diffused to other non-banking companies (Phongpaichit and Baker, 1998: 21). Therefore:

> *Hypothesis 4. Compared with non-MNEs, MNEs have more military directors on their boards.*

5. Methodology

Sample

We focused on the top 200 listed firms by obtaining data from the Stock Exchange of Thailand (SET) and company annual reports during 1994–96. The 200 firms were classified as either MNEs or non-MNEs according to a two-step procedure. First, an MNE must have maintained operations in at least three countries during these three years (Stopford and Dunning, 1983). Then it had to satisfy one of the following two criteria: at least 5% of its

sales was derived internationally in all three years during 1994–96 or 5% or more of its assets was invested overseas at the end of 1996.

Although the number of countries involved, overseas revenue, and assets abroad are common criteria to determine multinationality (Daniels and Bracker, 1989; Geringer, Beamish, and da Costa, 1989; Stopford and Dunning, 1983), the specific levels of these aspects are difficult to apply across a wide range of countries. For this study, the threshold level to differentiate MNEs from non-MNEs was decided by the third author, who is a practitioner-turned scholar and who currently serves as a director on the board of four listed Thai corporations, with assistance from an experienced consultant in Thailand. They found that if a common threshold of 10% were applied, only 26 firms would be categorized as MNEs. Since many Thai firms are new to the global market, several leading firms would have been classified as domestic ones if a 10% threshold had been applied. For example, Bangkok Bank, which is the country's largest firm in terms of assets, is widely recognized as a pioneering MNE active throughout Southeast Asia. But it would be classified as a "domestic" firm according to the 10% threshold. Therefore, given the early stage of internationalization of many firms, a 5% threshold, which indicates a relatively strong commitment to becoming MNEs among firms in Thailand, was deemed reasonable.[4] As a result, 102 firms were classified as MNEs and 98 as non-MNEs, resulting in two samples of approximately equal size.

Patterns of the interlocks network in Thailand

Since no previous study focused on the interlocks network in Thailand, we wanted to first illustrate the patterns of such a network before proceeding with hypothesis testing. Toward that end, we computed key network statistics, and compared them with those from Stokman and associates' (1985) research on the top 250 listed firms in Great Britain and the United States and those from Au and colleagues' (2000) work on the top 200 listed companies in Hong Kong (Table 1).[5]

Within an interlocks network, only persons with two or more board positions, i.e., *multiple directors*, generate interlocks. Multiple directors in Thailand are a minority group (14%), just like those in Hong Kong (17%), Great Britain (11%), and the United States (18%). However, among the top 200 Thailand-based firms, MNEs (13%) have more multiple directors than non-MNEs (7%). The mean number of positions per director in Thailand (1.21), i.e., the *cumulation ratio*, is also similar to Hong Kong (1.29), Great Britain (1.15), and the United States (1.28). The cumulation ratio of Thailand-based MNEs (1.17) is slightly larger than that of non-MNEs (1.08).

Among the multiple directors, the number of director seats they hold reveals that Thailand has a large proportion of multiple directors who belong to just two boards (69%), larger than that found in Hong Kong (61%) and the United States (64%), and equal to the percentage found in Great Britain (69%). When Thailand-based MNEs are differentiated from non-MNEs, this difference becomes more pronounced: only 11% of the non-MNE multiple directors hold board positions in more than two companies. In contrast, MNEs have a more abundant number of directors who hold director seats in more than two firms (21%), indicating that their interlocks may be more densely connected.

Table 1. Patterns of interlocking directorates in Thailand: A comparison with Hong Kong, Great Britain, and the United States.[a]

Variables[b]		Thailand Top 200	Thailand 102 MNEs	Thailand 98 non-MNEs	Hong Kong Top 200	Great Britain Top 250	United States Top 250
Total number of directors		1,511	816	816	1,628	2,682	3,108
Total number of director seats		1,833	955	878	2,105	3,091	3,976
Total number of multiple directors		213	102	55	276	282	564
Proportion of multiple directors		14%	13%	7%	17%	11%	18%
Cumulation ratio		1.21	1.17	1.08	1.29	1.15	1.28
Number of director seats held by a multiple director	2	69%	79%	89%	61%	69%	64%
	3	19%	13%	9%	25%	21%	24%
	4	8%	5%	2%	6%	6%	8%
	5	3%	2%	0%	5%	3%	3%
	more than 5	1%	1%	0%	3%	1%	1%
Multiplicity[c]	1	86%	83%	88%	78%	94%	84%
	2	9%	13%	5%	10%	5%	13%
	3	3%	2%	4%	5%	2%	2%
	more than 3	3%	2%	3%	7%	0%	1%
Distance	1	2%	3%	1%	2%	2%	3%
	2	7%	8%	1%	10%	12%	22%
	more than 2	91%	89%	98%	88%	86%	75%

[a]The data on Thailand are based on our own calculation. The data on Hong Kong come from Au, Peng, and Wang (2000). The data on Great Britain and the United States are from Stokman, Ziegler, and Scott (1985).

[b]Definition of variables (Stokman *et al.*, 1985; Scott, 1991).

Cumulation ratio: Total number of director seats/Total number of directors.

Multiplicity: The number of separate contacts which make up the relationship and is a measure of the intensity of the relationship. Operationally, it is the number of interlocking directors that any two firms have.

Distance: It is a measure of the closeness between any two members of the network. Operationally, it is the shortest path that a firm could reach another firm.

[c]Multiplicity for Thailand and Great Britain does not add up to 100% because of rounding errors (see Stokman *et al.*, 1985: 25).

The strength of the connection can be measured by *multiplicity*, which is the number of interlocking directors between each pair of connected companies (Scott, 1991). In other words, there may be more than one interlock between two connected firms. The data suggest that more Thai firms (14%) are connected through multiple directorships than British firms (6%). But an even larger number of firms in Hong Kong (22%) and the United States (16%) have strong connections among connected firms. Within Thailand, more MNEs (17%)

are connected through multiple linkages than their non-MNE counterparts (12%), again indicating the strength of MNEs' interlocking linkages.

Another measure of the strength of the connections is *distance*, defined as the number of interlocking directorates that a particular firm needs to go through before it can reach a target firm (Scott, 1991). For instance, if there is an interlock between firms A and B, it is said that they are at distance 1 apart, i.e., there is merely one link between them. However, if firms A and B do not share a common director but both have a common director from firm C, then A and B are at distance 2 apart. This is because A needs to go past its link with C (distance 1) and then the link between C and B (distance 1) to reach B. Pairs of firms at a greater distance from one another can hardly be assumed to communicate through interlocks (Stokman et al., 1985: 25). The data suggest that more firms in Thailand are more than distance 2 apart (91%), compared with their counterparts in Hong Kong (88%), Great Britain (86%), and the United States (75%). In Thailand, non-MNEs seem to be more sparsely connected, with 98% of them maintain a distance of more than 2. In comparison, MNEs are relatively more densely connected, with 89% of them having a distance of more than 2.

Globally, the patterns of the overall interlocks network in Thailand may be regarded as well-connected (cumulation ratio), but weak in strength (multiplicity). Their weak linkages are also reflected in the lower percentage of multiple directors who occupied more than two director seats, relative to that percentage elsewhere. MNEs in Thailand, however, tend to have more multiple directors (cumulation ratio), have more multiple directors with more than two board memberships, have more multiple linkages between any given pair of MNEs (multiplicity), and, in general, are more closely connected (distance).

Major variables

Density. Density was measured by the total number of ties divided by the total number of possible linkages (UCINET, 1996).

Centrality. Centrality can be measured in a number of ways. Freeman (1979) clarified three related measures of centrality. We followed this fine-grained approach in computing the centrality measures. The first measure is *betweenness*, which calculates the extent to which actors fall between pairs of other actors on the shortest paths connecting them. It measures the *potential* control over others. Thus, if firms A and C were connected only through firm B, B would fall "between" A and C, and would mediate the flow of any resources between A and C. Operationally, betweenness is a measure of the number of times a member occurs on the shortest path between any two members (UCINET, 1996: 85).

The second measure of centrality is *closeness*, which accounts for both direct and indirect links suggesting how "close" one is to all others in the network. It indicates the extent to which an actor can *avoid* the control of others. Operationally, we used the normalized closeness measure (UCINET, 1996: 84). It is the reciprocal of "farness" divided by the minimum possible farness expressed as a percentage. Farness is the sum of the lengths of the shortest path from the member to every other members of the network. In this sense, closeness measures the shortest steps for a member to reach all other members.

Finally, we computed *degree* centrality. It represents the number of alternatives available to an actor and captures exchange behaviors that occur via direct interaction, such as threatening and reciprocation. It also represents the *avoidance* of relying on mediating positions for indirect access to resources. Operationally, degree is given by the total number of links to other firms.

Directors of different ethnic backgrounds. Following Pyatt (1996), we classified the directors into four groups based on their last names: Thai Chinese, other Chinese, other Thai ethnicity, and non-Chinese foreigners (mostly Westerners and Japanese). Although the vast majority of Thai Chinese have adopted local names, they typically embed their full Chinese name in their Thai last name and add a Thai first name to make up their full Thai name (e.g., Samart Powpaka). The Thai last name of the ethnic Chinese is therefore often longer than two tones (e.g., Boonyarungsrit) whereas that of other ethnic groups of Thailand is usually shorter (e.g., Pupat). As a result, the Chinese origin of Thai Chinese, even after they have adopted Thai names, can be detected reliably by the locals. For other Chinese who are not Thai citizens, the spelling of their last names uses a different system to enunciate Chinese characters (e.g., Peng, Au, Wang), and can be easily distinguished from Thai Chinese names. Likewise, non-Chinese foreigners' names (e.g., Jones, Suzuki) can also be identified with a high degree of reliability.

To code these variables, we engaged an ethnic Thai and a Thai Chinese, who are consultants with a combined business experience of over 50 years in Thailand, to determine the directors' ethnicity. Thai directors were classified into Thai Chinese or ethnic Thai directors according to the above general rule based on their last names. If the name indicated that the director was not Thai, they would group the person as either other Chinese or foreigners according to the last name. A small number of unknowns and disagreements (2.7%) were resolved by consulting directly with the companies concerned via phone calls.

Directors with a military background. As noted earlier, Thai companies indicate the military rank of their directors in company publications (whenever applicable). There are a total of 42 boards which have directors who carry a military rank, such as general and admiral. A majority of these boards have only one such director. We created a dummy variable to signal their presence.

Control variables

Firm size. We controlled firm size by the logarithm of total assets. Alternative variables that measure firm size, including capitalization and revenue, correlated highly with this variable.

Board size. The information on board size was directly coded from the annual reports.

6. Findings

Shown in Table 2, the demographic characteristics and governance patterns of the MNEs are compared and contrasted with those of the non-MNEs. As expected, MNEs were

Table 2. Demographic characteristics and governance structure of MNEs and non-MNEs in Thailand.

Variables	MNEs ($N = 102$) Mean (S.D.)	Non-MNEs ($N = 98$) Mean (S.D.)	t
Demographic Characteristics			
Total assets (million Baht)	59,104 (144,643)	16,398 (24,436)	2.88**
Market capitalization (million Baht)	17,644 (30,692)	4,721 (6,737)	4.07**
Total revenue (million Baht)[a]	12,796 (20,886)	4,935 (3,887)	2.46**
Net profit (million Baht)[a]	1,129 (2,634)	318 (424)	1.66*
Return on equity (%)[a]	11.4 (37.3)	14.2 (17.0)	.58
Return on asset[a]	6.48 (9.52)	5.33 (11.41)	.13
Debt-to-equity ratio[a]	3.36 (3.84)	3.31 (3.68)	2.18**
Board size [a]	9.37 (1.08)	8.94 (1.43)	1.86*
Governance Patterns			
H1. Density	.042 (.25)	.015 (.16)	8.64**
H2. Centrality 1: Betweenness[a]	237.6 (325.0)	119.9 (262.8)	1.96**
Centrality 2: Closeness[a]	2.11 (.65)	1.89 (.82)	1.42
Centrality 3: Degree[a]	6.49 (6.33)	3.70 (4.25)	2.67**
H3. % of Thai Chinese on board[a]	77% (19%)	73% (22%)	1.29
% of other Chinese on board[a]	4% (12%)	5% (14%)	.55
% of other ethnic Thai on board[a]	13% (13%)	13% (13%)	.97
% of non-Chinese foreigners on board[a]	7% (15%)	9% (16%)	.86
H4. Presence of military directors on board[b]	26%	15%	3.76**

[a]Indicate that covariates were used in the analysis.
[b]Logistic regression was used to analyze this binary variable to give a more precise test. Chi-square test was also used to test this hypothesis, and no covariates were used.
*$p < .10$.
**$p < .05$.

significantly larger than their non-MNE counterparts in terms of total assets (59,104 million Baht[6] versus 16,398 million Baht, $p < 0.05$), market capitalization (17,644 million Baht versus 4,721 million Baht, $p < 0.05$), and revenue (12,796 million Baht versus 4,935 million Baht, $p < 0.05$). MNEs also tended to have a larger board than non-MNEs (9.37 directors versus 8.94 directors, $p < 0.10$). Although MNEs also reported more profits (1,129 million Baht versus 318 million Baht, $p < 0.05$), their ROE (11.4% for MNEs versus 14.2% for non-MNEs, n.s.) and ROA (6.48 for MNEs versus 5.33 for non-MNEs, n.s.) were not particularly better than those of non-MNEs.

The lower part of Table 2 lists key network attributes that are of central interest to this study. Hypothesis 1 suggested that MNEs have a higher level of density than non-MNEs, and this was supported by the density scores for these two groups of firms (0.042 for MNEs versus 0.015 for non-MNEs, $p < 0.05$).[7] We also examined whether the interlock matrices of MNEs and non-MNEs were similar by running a quadratic-assignment-procedure (QAP) correlation (UCINET, 1996:135). Since there were 102 MNEs and 98 non-MNEs, we

randomly took out four cases from the MNE matrix ($102 - 4 = 98$) to equalize the dimension at 98. Then we correlated the transformed MNE matrix with the non-MNE matrix. A null correlation would mean that the matrices are dissimilar and thus strengthen the argument that the density of the two matrices are not the same. In this case, the correlation was -0.02, $p > 0.86$, thus again supporting Hypothesis 1.

Hypothesis 2 posited that MNEs are more centrally located in the interlocks network. Using the three fine-grained centrality measures first proposed by Freeman (1979), we found support for this hypothesis in two of the three cases controlling for firm size and board size. When betweenness and degree were used as centrality measures, MNEs were found to occupy more central locations in the interlocks network. Specifically, MNEs' betweenness was significantly higher than that of non-MNEs (237.6 versus 119.9, $p < 0.05$), and MNEs' degree was similarly higher than that of non-MNEs (6.49 versus 3.70, $p < 0.05$). However, when closeness was used as a centrality measure, the difference between MNEs and non-MNEs was not significant (2.11 versus 1.89, n.s.). Such an ambiguity in the results led us to conduct an additional test for Hypothesis 2 (see below).

Hypothesis 3 argued that MNEs are more likely to appoint ethnic Chinese directors, including both Thai Chinese and other Chinese. This hypothesis was rejected, since both MNEs and non-MNEs employed approximately an equal proportion of Thai Chinese directors (77% for MNEs versus 73% for non-MNEs, n.s.) and other Chinese directors (4% for MNEs versus 5% for non-MNEs, n.s.). These two groups of firms also appointed an equal percentage of other non-Chinese Thai directors (both groups had 13%) and non-Chinese foreign directors (7% for MNEs versus 9% for non-MNEs, n.s.). It is important to note that these findings were obtained *after* firm size and board size were controlled using these variables as covariates. In short, the ethnic composition of both groups of firms appeared to be largely the same, leading to a rejection of Hypothesis 3.

Finally, Hypothesis 4, addressing the role of military directors, was supported. Specifically, there were more military directors on the board of MNEs (26%) than those on the board of non-MNEs (15%). And the difference was significant, $\chi^2(1) = 3.76,\ p < 0.05$. Logistic regression analysis using military directors as a dummy variable ($b = 0.60,\ p < .10$) obtained similar results after board size ($b = -0.07$, n.s.) and firm size ($b = 0.22,\ p < 0.10$) were controlled, $\chi^2(3) = 7.07,\ p < 0.10$.

Given the ambiguity in the findings for Hypothesis 2 above, we conducted an additional ordinary least square (OLS) hierarchical regression. The three measures of centrality, namely, betweenness, closeness, and degree, were regressed hierarchically on the following three blocks for clearer understanding of the effects of each set of variables: (1) the dummy variable of MNE, (2) firm size and board size, (3) composition of the board. Hierarchical regression was used to facilitate the interpretation of results. Table 3 summarizes the changes in R^2 for each step and reports the standardized regression coefficients of the models (see also Appendix for a correlation matrix).

Using *betweenness* as the centrality measure (Model 1), the dummy variable of MNE status was significant ($R^2 = 0.04,\ p < 0.01$). After controlling for firm size ($\beta = 0.22,\ p < 0.01$) and board size ($\beta = 0.11$, n.s.), Model 2 showed that the dummy variable of MNE status was still significant ($\beta = 0.14,\ p < .05$). As illustrated by Model 3, variables related to composition of the board (block 3) explained no further variance ($R^2 = 0.04$, n.s.). The

Table 3. Do MNEs have a higher level of centrality? An OLS regression test of Hypothesis 2.

	Centrality measures								
	Betweenness			Closeness			Degree		
	Model[a]								
Block and Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. MNE status	.20**	.14**	.12*	.15*	.10	.09	.24**	.18**	.17**
2. Firm size (log asset size)		.22***	.20**		.26***	.22***		.20***	.16**
Board size		.11	.12		.03	.05		.12*	.15**
3. % of Chinese Thai			2.82**			−.14			1.39
% of other Chinese			1.81**			−.01			.99
% of other ethnic Thai			1.67**			−.24			.75
% of non-Chinese foreigners			2.09**			−.09			.97
Presence of military directors			−.01			.07			−.00
ΔR^2	.04***	.07	.04***	.02**	.07***	.04	.06***	.06***	.04*
R^2	.04***	.11***	.14***	.02***	.09***	.13***	.06***	.12***	.17***
Adjusted R^2	.03	.09	.11	.02	.08	.10	.05	.11	.13

[a]Figures are standardized regression coefficients.
*$p < .10$.
**$p < .05$.
***$p < .01$.

significant coefficients of the board composition variables were due to their multicollineality (see Appendix). In Model 4, we found that, when *closeness* was used as the centrality measure, the dummy variable of MNE status was significant ($R^2 = 0.02,\ p < .05$). However, in Model 5, the MNE variable became insignificant after firm size was entered into the equation ($\beta = 0.26,\ p < 0.01$). Board composition did not explain any more variance (Model 6). Finally, shown in Model 7, the dummy variable of MNE status was again significant ($R^2 = 0.06,\ p < 0.01$) when we used *degree* as the centrality measure. Having a larger firm size ($\beta = 0.20,\ p < 0.01$) and posting a larger board ($\beta = 0.12,\ p < 0.10$) contributed to a higher level of degree centrality (Model 8). But MNE status remained to be significant ($\beta = 0.18,\ p < .05$) after these variables were entered into the equation. In Model 9, variables related to board composition added only marginal explainable variance ($\Delta R^2 = 0.04,\ p < 0.10$).

Overall, the regression results supported Hypothesis 2, namely, MNEs tend to occupy more central locations in the interlocks network, in a more significant and detailed fashion than the *t*-test results obtained in Table 2. On the other hand, although firm size explained away the effect of MNE when the centrality measure was closeness, it could not remove all the explanatory power of the MNE variable on the other two centrality measures. In

addition, weighted least square regression was also conducted as an independent check to deal with the potential heteroscadasticity problem, but the findings did not suggest other conclusions.

7. Discussion

Contributions

To the best of our knowledge, this article represents a first attempt to investigate the patterns of interlocking directorates of Thailand-based multinationals, and one of the first efforts to describe some characteristics of Third World MNEs that may possibly have an impact on corporate governance. It makes three contributions. First, it extends a strong *theoretical* base, namely, resource dependency theory which originated from the West, to the context of MNEs from an emerging economy. Few studies on Third World MNEs have endeavored to develop hypotheses to tease out whether certain theories would hold for these emerging multinationals. In contrast, we are able to found support for three of the four resource dependence hypotheses. While the first two hypotheses on network attributes are directly drawn from theory, what is notable is that, in Hypothesis 4, we have identified the importance of military directors, whose contributions to firms had not been explored in the literature previously. Although the role of the military is not visible in the business world in the West, in many developing countries the military plays an important role that cannot be ignored. Therefore, this study enriches theoretical development on Third World MNEs by suggesting that scholars pay more attention to certain institutions, such as the military, that are not typically encountered in the West (Peng, 2000).

A second contribution is *methodological*. We have relied on a rigorous, quantitative methodology rarely employed to study non-Western firms. The network methodology used in interlocks research often demands large-scale, high-quality data which are usually only available in the West but not in the Third World. In this case, we were able to take advantage of a large, comprehensive, and archival-based data set, and to demonstrate how such a methodology can be applied to Thailand. Consequently, our results are replicable and falsifiable, which compare favorably with the findings from previous studies using survey and interview methods on Asian firms.

On the other hand, this study also calls for a certain degree of methodological flexibility when undertaking research in a developing economy, such as our methodological choice to differentiate MNEs from non-MNEs. On a global scale, our threshold levels (operating in 3 countries, 5% sales or assets abroad) appear to be low, especially in light of massive operations around the world undertaken by MNEs from developed countries. However, in the case of a developing economy such as Thailand which has many fledgling MNEs just trying to "get their feet wet" abroad, such low levels are justified, as evidenced by the significant differences along demographic and governance dimensions of the two groups of firms (Table 2).

Finally, this study *empirically* contributes to the small but expanding literature on Third World multinationals in general, and Thailand-based firms in particular. While we found that, as expected, MNEs have more densely connected interlocks (Hypothesis 1), occupy

more central network locations (Hypothesis 2), and appoint more military directors to the board (Hypothesis 4), what is surprising and potentially interesting is that the results did not support Hypothesis 3, which predicted that MNEs would have more ethnic Chinese directors on the board. While Hypothesis 3 drew upon theory, it was also based on a large body of descriptive literature on the prowess and resourcefulness of ethnic Chinese business connections throughout Southeast Asia (Hamilton, 1996; Peng, 2000; Redding, 1990; Whitley, 1992). As a result, the importance of ethnic Chinese behind the growth and expansion of many Asian firms such as those MNEs from Thailand seems to have become a part of conventional wisdom.

Falsifying such conventional wisdom, we found that the proportion of ethnic Chinese directors on the board appears to be the same for both MNEs and non-MNEs. It is interesting to compare this finding with that of the role of military directors (Hypothesis 4). In that case, MNEs are more likely to attract military directors to the board, probably due to MNEs' better prestige, larger size, and, most importantly, deeper pockets. Using the language of the resource-based view of the firm (Barney, 1991), we may suggest that in an economy largely controlled by ethnic Chinese, having Chinese directors on the board does not constitute valuable, unique, and hard-to-imitate resources by and in themselves. Appointing military directors, on the other hand, may allow firms to tap into the difficult-to-imitate "political resources" (Boddewyn and Brewer, 1994) and "institutional capital" (Oliver, 1997). This interpretation is also consistent with the network theory of structural holes (Burt, 1992), in that military directors, due to their privileged political position, are more likely to profit from structural holes in the economy, whereas ethnic Chinese directors, having largely filled these holes, are left with few structural holes to connect and to profit from.

Practical implications

For current and would-be MNEs in Thailand and elsewhere, our findings suggest that it may be important to tap into the resources in the interlocks network in order to coopt sources of environmental uncertainty. In this age of globalization, while it is tempting to venture abroad, a multinational expansion strategy without access to a secure domestic resource base, measured by the density and centrality within the interlocks network, may backfire. In addition to these network attributes measured at an *aggregate* level, firms also have to decide what *individual* directors to appoint to the board. Our results indicate that, despite popular belief, appointing ethnic Chinese directors does not necessarily help. Their role in the internationalization of the firm is neutral at best. Having military directors, on the other hand, may help the appointing firm to internationalize, at least during the period under study (1994–96). However, in light of the military's public "retirement" from politics and the emergence of a parliamentary democracy since the early 1990s, it is unclear whether military directors will be able to continue to provide critical resources to firms. The role of military directors is increasingly being called into question during the post-1997 era in which governance transparency is a major goal in economic restructuring (*South China Morning Post*, 2000; Woodall, 1998). Overall, a key message from our findings is that, eventually, it is directors' individual professionalization, capabilities, and resourcefulness that count.

Limitations and future research directions

Among the limitations, first, theoretically, the dynamics we hypothesized and tested are correlational, but not causal. While MNEs may have more dense connections, more central locations, and more military directors, it is equally plausible that these attributes may lead certain non-MNEs to start internationalization, thus resulting in a "causal ordering problem" (Mizruchi, 1996: 290). This, however, is not a problem only found in this study. Interlocks research historically has had to confront this difficulty (Richardson, 1987). We believe that as a first step, the identification of the correlations between network attributes and firm status such as being an MNE is important in a new research setting.

Second, methodologically, this study is vulnerable to all the standard criticisms leveled at cross-sectional research. While we painstakingly compiled a large data set from various published, archival sources in Thailand, we were only able to access data during the period 1994–96. Thus, the lack of a longitudinal design due to data limitations may impede the generalizability of the findings.

Third, similar to most interlocks research, we did not systematically interview executives and directors to unearth *exactly* what resources are exchanged. Language barrier and resource constraints prevented us from undertaking such field work. However, compared with most scholars, we have been able to get a much better sense of the dynamics underlying many firms there, since the third author has a wealth of business experience and contacts in Thailand. Our informal conversations with executives, directors, and officials both before and after this study lead us to believe that the results we found are highly plausible.

Finally, this study's empirical context has its own limitations. While some findings may be generalized beyond Thailand to other Third World MNEs, this assertion needs to be rigorously examined. Although hypotheses on the density (H1) and centrality (H2) of MNEs are likely to be supported in other countries, more Thailand-specific hypotheses such as the role of ethnic Chinese directors (H3) and of military directors (H4) may need to be modified with a better fit with the local institutional environment when being tested elsewhere (Peng, 2000; Peng and Heath, 1996). Further, this study focused on 1994–96, a period during which the Thai economy was experiencing its last years of spectacular growth. Strong domestic growth fueled strong multinational expansion at that time. The financial meltdown since July 1997 has caused a large number of firms to contract, including withdrawals from abroad. Some of these top 200 firms no longer exist due to bankruptcies. Therefore, the dynamics during the post-1997 era may be different from what we explored, thus calling for an extension of this study.

These limitations suggest several directions for future research. First, given the difficulty of positing causal linkages in interlocks research, we have left the performance implications unexplored. Ultimately, however, the performance question is the one that matters. Therefore, the next step will be to tackle the link between interlocks and firm performance. Methodologically, longitudinal designs will be more ideal given the inherent path-dependent nature of network formation, evolution, and possible dissolution (Madhavan, Koka, and Prescott, 1998). It will also be beneficial to employ qualitative methods such as interviews and surveys to complement quantitative techniques. For firms in Thailand, it will be

interesting to extend the current work to the post-1997 era to investigate how they react to the financial crisis. More globally, comparative studies comparing Thailand-based MNEs with those from other developing and developed countries hold the potential to significantly enhance our understanding of Third World MNEs.

8. Conclusion

"If interlocks are to be worth studying, it is essential that they be shown to have consequences for the behavior of firms" (Mizruchi, 1996: 280). In this study, we have shown that, in Thailand, interlocks are significantly associated with an important behavior of firms, namely, their internationalization. Given that interlocking directorates are only one facet of corporate governance, it is important to note that this article, as a first step, only represents an entering wedge into the workings of corporate governance in Third World multinationals. In conclusion, there is a lot of research that needs to be done to help us understand corporate governance in these emerging multinationals, or firms in developing countries in general. As the field matures, it is important for mainstream organizational research to move away from the parochial thinking that regards non-Western firms as "outliers" that can be ignored (Peng, 2000). If this work can provoke more research interests on governance issues in Third World multinationals, then we will believe that our mission have been well accomplished.

Appendix. Correlation matrix for variables used in the OLS regression

Variables	1	2	3	4	5	6	7	8	9	10
1. Betweenness										
2. Closeness	.32**									
3. Degree	.76**	.46**								
4. MNE (Y/N)	.20**	.16*	.24**							
5. Board size	.18*	.11	.19**	.17*						
6. Firm size (log total asset)	.27**	.28**	.27**	.19**	.23**					
7. % of Thai Chinese directors	.04	.08	.08	.10	−.02	.15*				
8. % of other Chinese directors	−.12	−.21**	−.17*	−.05	.04	−.13	−.46**			
9. % of other Thai directors	.08	.13	.16*	−.01	−.10	.08	−.39**	−.23*		
10.% of foreign directors	−.01	−.05	−.09	−.08	.08	−.17*	−.64**	−.02	−.12	
11. Presence of military directors	.05	.13	.07	.14	.01	.15*	.13	−.11	.05	.14

$N = 200$.
*$p < .05$.
**$p < .01$.

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Notes

1. It is important to note that not all firms go through distinct stages of internationalization and that some smaller firms may be "born global," which are otherwise known as "international new ventures" (Oviatt and McDougall, 1997). However, such findings are confined to smaller entrepreneurial firms, and most larger firms, due to their more methodical approach and more bureaucratic structure, may still go through several distinct stages in their internationalization process. This study focuses that the top 200 largest listed firms in Thailand and does not capture any data on smaller firms, thus necessitating the incremental approach in internationalization suggested by stage theory (Johanson and Vahlne, 1977, 1990).
2. Recent work by Claessens and colleagues (2000: 108) found that at the time of our study (the end of 1996), the top 15 families in Thailand controlled 53% of total value of listed corporate assets.
3. Despite using Thai surnames, their Chinese origin is detectable by the locals. See the Methodology section.
4. It is interesting to note that since many Thai MNEs only started internalization recently, they are similar to "international new ventures" (Oviatt and McDougall, 1997). Research differentiating "international" new ventures from "non-international" new ventures typically used a 5% threshold in international sales (McDougall and Oviatt, 1996), which is exactly the same criterion we used here.
5. That Hong Kong, Great Britain, and the United States were chosen as a basis for comparison was because they all use the same single-board system as in Thailand, which facilitates comparability. In countries with a two-board system (e.g., Austria, Belgium, and Germany), the shareholders appoint a supervisory board, which in turn appoints directors for the executive board. While the two boards perform their functions similar to the non-executive and executive members in the single-board system (Stokman et al., 1985: 17), direct comparison of a single-board system with a two-board system would be technically difficult.
6. At the end of 1996, the Thai Baht was pegged to the U.S. dollar at 25 Baht/$1. The Baht experienced severe devaluation since July 1997, and ws valued at approximately 40 Baht/$1 on May 23 and October 7, 2000 (finance.yahoo.com) when we submitted and revised this article, respectively.
7. Confounding variables were not controlled because density is a group-level variable. But other analyses on, say, centrality imply that confounding variables cannot completely explain away the differences found here.

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