



The *keiretsu* in Asia: Implications for multilevel theories of competitive advantage

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Abstract

Much of our understanding of competitive advantage draws upon the experience of Western firms. Massive Japanese investment in an effort to replicate *keiretsu* (interfirm) networks in Asia since the 1980s presents fertile grounds to shed new light on the sources of competitive advantage. Building on such an experience, this article develops a multilevel perspective focusing on how competitive advantage is preserved and strengthened for firms, networks, and nations involved. Its hallmark is careful attention to levels of analysis by (a) spelling out the attendant assumption of homogeneity among *keiretsu* member firms, (b) explaining the basis of such an assumption, (c) exploring alternative assumptions, and (d) drawing upon diverse subtopics within the strategy literature. © 2001 Elsevier Science Inc. All rights reserved.

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1. Introduction

In the strategy literature, competitive advantage is typically regarded as a firm-level construct (Barney, 1991). While some theorists argued that the basic unit of analysis should be the transaction level (Williamson, 1985) or the activity level (Dunning, 1993), others suggested that the business unit level (not the firm level) is where competitive advantage

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resides (Rumelt, 1991). Still, others believed that competitive advantage can also be found in higher-level entities such as industries (Porter, 1980) and nations (Porter, 1990). Regardless of the level of focus, much of our understanding of competitive advantage draws upon the experience of Western firms. The emergence of Japanese firms in global competition in the past few decades has significantly challenged traditional thinking on the sources of competitive advantage. Despite the recent economic crisis engulfing Japan since the 1990s, Japanese firms remain a force to be reckoned with around the world (Beamish and Inkpen, 1998; Lincoln et al., 1998). While there are a number of unique aspects associated with the Japanese industrial organization such as team-based production and total quality control (Keys et al., 1994; Sullivan and Peterson, 1989), *keiretsu* networks, the webs of interfirm relations that envelop many Japanese firms, have been widely regarded as a major source of their competitive advantage (Dyer, 1997; Fruin, 1992; Gerlach, 1992) and will be the primary focus of this article.

More recently, the diffusion of the *keiretsu* from Japan to other countries has been viewed as an attempt to replicate such an advantage through foreign direct investment (FDI; Martin et al., 1995). While the *keiretsu* has made substantial inroads in North America (Banerji and Sambharya, 1996; Florida and Kenney, 1993; Kearns, 1992) and Europe (Oliver and Wilkinson, 1992; Turnbull et al., 1992), this network form of organization has been especially active in Asia² since the 1980s (Aoki, 1995; Fukuda, 1993). These *keiretsu* networks, which have made a decisive contribution to the industrialization in Asia, have led some writers to argue that a “new economic and political system” has emerged in Asia, whereby local firms and economies rely heavily on Japan for capital and technology (Fallows, 1994; Hatch and Yamamura, 1996). Although much of Asia has been hit by an economic crisis since 1997 and the Japanese economy itself has not been as strong as it was before, the pattern of Japanese FDI in Asia has remained relatively stable (JETRO, 1999a,b). While change is indeed pervasive throughout Asia, the *keiretsu* continues to remain powerful throughout the region. As a result, *keiretsu* activities in Asia not only affect the competitive advantage of the parent firms, the networks they lead, and the Japanese economy but also influence the competitiveness of the Asian suppliers as well as their home economies.

However, when compared with the voluminous research on Japanese FDI in North America and Europe, there remains a paucity of research on such activities in Asia (Taylor, 1999). This is unfortunate because nowhere has the *keiretsu* been as visible and important as in Asia (Yamamura and Hatch, 1997). Aiming to help fill such a gap, we believe that *keiretsu* activities in Asia present fertile grounds to shed considerable light on multilevel theories of competitive advantage. Consequently, this article aims to demonstrate how an *explicit* consideration of the level of analysis can generate propositions that can help guide future research by drawing on the experience of non-Western firms in Asia. To accomplish this objective, the remainder of the article first discusses levels of analysis in existing theories,

² In this article, “Asia” refers to the four newly industrialized economies (Hong Kong, Singapore, South Korea, and Taiwan), the four core members of the Association of Southeast Asian Nations (Indonesia, Malaysia, the Philippines, and Thailand), and China, if not otherwise specified.

followed by an overview of the *keiretsu* in Asia. Then, we follow the four guidelines suggested by Klein et al. (1994) to advance four multilevel propositions.

2. Level of analysis in theories of competitive advantage

The level of analysis is important since it describes the target (e.g., individual, firm, industry, and country) that researchers aim to depict and explain. It is “the level to which generalizations are made” (Rousseau, 1985, p. 4). Strategy researchers typically suggest that competitive advantage rests at the firm level. The firm is regarded as the mechanism whereby competitive advantage, through the development and acquisition of resources and capabilities, is exploited and sustained (Kogut and Zander, 1992; Teece et al., 1997). Therefore, it is not surprising that the most recent theoretical advance in strategy is termed a resource-based view of the *firm* (Barney, 1991). Below the firm level, the business unit level was singled out by Rumelt (1991) as the level where it really matters. From a more microlevel, Williamson (1985) regarded the *transaction* as the basic level of analysis. The upshot is that firms that organize transactions better will obtain more advantage. Focusing on multinational enterprises (MNEs), Dunning (1993, p. 76, added emphasis) proposed an eclectic paradigm, which “is not a theory of the MNE per se but rather of the *activities* of enterprises engaging in cross-border value-adding activities.” Similarly, Porter (1991, p. 102) believed that “The basic unit of competitive advantage is the discrete activity.” Porter (1980, 1990) also wrote that competitive advantage could be found at the industry and country levels. In essence, Porter argued that competitive advantage is a *multilevel* construct, which should be investigated at different levels, from the activity level up to the country level. The firm serves as a linking pin across these multiple levels of analysis.

Following Klein et al. (1994), we argue that levels issues not only reflect a “judgment call” but also require careful consideration of the attendant assumptions underlying the theory being developed. Failure to explicitly consider the appropriate level of analysis and the underlying assumptions may lead to “imprecision within the theory and confusion during data collection and analysis to test the theory” (Klein et al., 1994, p. 205). Specifically, we suggest that Japanese FDI activities in Asia present a rare opportunity to allow us to examine the attendant assumptions underlying theories of competitive advantage, which we turn to next.

3. The *keiretsu* advantage

Keiretsu networks can be defined as “institutionalized relationships among firms based on localized networks of dense transactions, a stable framework of exchange, and patterns of periodic collective action” (Gerlach, 1992, p. 3). These relationships usually include cross-ownership, common trademarks, intranetwork transactions, and preferential loans within the network. The economic impact of the *keiretsu* is significant in Japan. In the 1990s, member firms associated with the largest six *keiretsu* networks, which only represented 0.007% of the

total number of all Japanese firms, accounted for approximately 4% employment, 13% assets, 15% capital, 14% sales, and 12% profits (Dow and McGuire, 1999, p. 48; Lincoln et al., 1998, p. 330).

The *keiretsu* has long been identified as a major source of Japanese competitive advantage (Aoki, 1988; Fruin, 1992; Gerlach, 1992; Miyashita and Russell, 1994). Specifically, Japanese firms not only derive competitive advantage within their own boundaries but also from their respective *keiretsu* networks. An often-cited example is the ability to reduce transaction costs among *keiretsu* members (Hill, 1995). Compared with the typical Western firm, a Japanese manufacturer has fewer suppliers, which usually are members of the *keiretsu* (Walker, 1994). The relationship is characterized by long-term flexible contracts, frequent communication, and specialized investment (Asanuma, 1989; Cusumano and Takeishi, 1991). As a result, both the manufacturer and its suppliers obtain a low-cost advantage since there is little need to undertake costly vertical integration, which is typically practiced in the West. For example, Dyer and Ouchi (1993) found that in 1986, Toyota's *keiretsu* system only needed 340 people to buy parts and services for 3.6 million automobiles (10,560 units per buyer), whereas General Motors needed 3000 buyers to do the same job for 6 million vehicles (2000 units per buyer). Such a reduction in transaction costs resulted in a US\$700 cost advantage per car for Toyota, which was nearly 10% of the total cost of a small car.

Overall, the *keiretsu* advantage lies in its ability to generate “relational rent,” defined as “a supernormal profit jointly generated in an exchange relationship that cannot be generated by either firm in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners” (Dyer and Singh, 1998, p. 662). Consequently, the recently emerged relational view, with its emphasis on competitive advantage embedded in interfirm networks (Dyer and Singh, 1998; Powell, 1990), seems to be an insightful framework within which we can explore *keiretsu* activities in Asia.

4. The *keiretsu* in Asia

The diffusion of the *keiretsu* as an organizational form to other countries through FDI has increasingly moved these networks to the center stage of global competition. Outside Japan, strategy researchers are relatively more familiar with the work done on the *keiretsu* in North America (Florida and Kenney, 1993; Hennart and Park, 1994; Martin et al., 1995) and Europe (Oliver and Wilkinson, 1992). Even for these economies, which are well developed and populated by strong domestic firms, the *keiretsu* has proven to be a formidable competitor (Kearns, 1992). Therefore, it is easy to understand how the *keiretsu* is capable of creating a more significant impact in Asia, where local economies are not as well developed and domestic firms are not as strong as their Western counterparts (Aoki, 1995).

While the origin of Japanese FDI in Asia can be traced to the early twentieth century, until the 1980s, the bulk of Japanese FDI focused on North America and Europe. Through the late 1980s, cumulative Japanese FDI in the US was about five times as much as that in Asia. However, Japan's Asia-bound FDI picked up speed since the 1980s, driven by the *endaka*, which was the near doubling of the yen that followed the Plaza Accord of 1985. The *endaka*

Japanese Foreign Direct Investment Flows

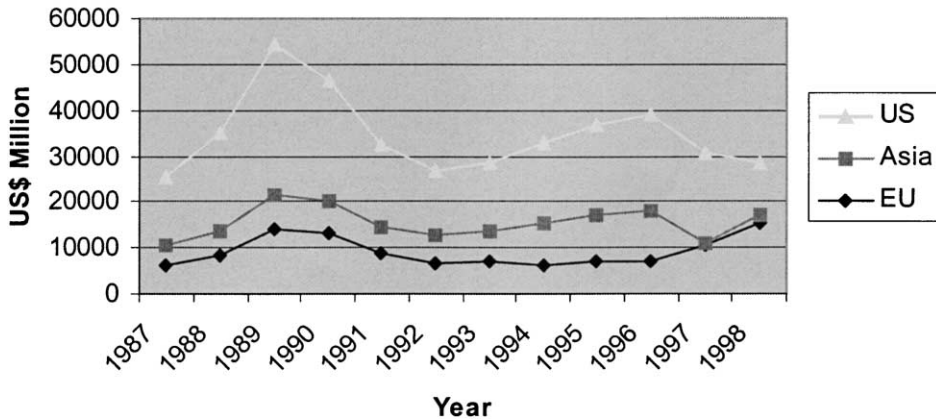


Fig. 1. Source: OECD (1999, pp. 199–200). For years 1996–1998, Japanese yen is converted to US dollar using end-of-the-year exchange rate in IMF (1999, p. 158).

forced many Japanese firms to aggressively invest in Asia to maintain their cost competitiveness (Fukuda, 1993; Mitsuhiro, 1994). In 1989, Japanese firms were investing four times as much in Taiwan as they had in 1985, five times as much in Malaysia and South Korea, six times as much in Singapore, 15 times as much in Hong Kong, and 25 times as much in Thailand (Fallows, 1994, p. 264). In a short span of 3 years (1992–1995), cumulative Japanese FDI in China experienced a 277% increase (Yamamura and Hatch, 1997, p. 23). Shown in Fig. 1, since the 1980s, Asia overtook Europe as the second largest recipient region for Japanese FDI, behind the US (OECD, 1996, pp. 168–169). More recently, since 1996, Japan's US-bound FDI keeps declining, while its Asia-bound FDI, despite a dip in 1997 due to the Asian economic crisis, has remained strong. At present, there is still more Japanese FDI pouring into the US than into Asia (OECD, 1999, pp. 206–207). However, since the scale of individual Asian economies is small when compared with the US, the Japanese presence thus seems, proportionately, immense.

Among all Japanese FDI in Asia, approximately 40% is estimated to come from *keiretsu* members.³ In the words of the Japanese government, *keiretsu* networks “scatter their production bases throughout the region based on the relative merits of each host country and try thereby to achieve a division of labor within Asia” (cited in Yamamura and Hatch, 1997, p. 11). As a result, the Asia Pacific region is “de facto, integrated or unified by the formation of [*keiretsu*] networks, particularly by Japanese FDI as the driving force to integrate with the trade channels of exports and imports” (Aoki, 1995, p. 376).

Just as they do at home, large Japanese firms embrace their Asian suppliers in long-term, intensive, and multifaceted relationships. Using these closed ties, large Japanese firms are

³ Estimate by Shige Makino, personal communication, September 27, 2000.

able to control the pace of technology transfer and thereby capture rents on their technology and innovation. According to this arrangement, research, development, and high value-added manufacturing largely remain in Japan, and labor-intensive operations mostly move to Asia. In addition to aggressively moving to Asia by themselves, large firms also prod their suppliers in Japan to follow them overseas (Banerji and Sambharya, 1996; Belderbos and Sleuwaegen, 1996). Under these pressures, small and midsize Japanese firms have also stepped up their FDI. In 1994, for example, 83% of the FDI by small and midsize firms went to Asia (Fujita, 1998, p. 72).

At the same time, Asian economies are benefiting from the increasing presence of Japanese production networks very much like Japan's less industrialized prefectures did from the expansion of the *keiretsu* networks throughout Japan during the 1950s and 1960s. An increasing number of Asian firms are becoming junior members in *keiretsu* networks, gaining access to Japanese capital, technology, and management, generating better-paid jobs, and producing marketable products. Japanese scholars argued that Asian economies are replacing Japan's rural prefectures as low-cost, mass-production sites for Tokyo-based large firms (Mitsuhiro, 1994).

Similar to their operations at home, the *keiretsu* networks in Asia are able to enhance the cooperative specialization among members and reduce transaction costs. However, these networks have to be exclusionary in order to maintain closed in-group relationships (Lawrence, 1993). In other words, domestic and foreign firms, which do not belong to these networks, face very high entry barriers in many Asian markets because they are often deterred from entering or barred from establishing relationships with firms in these networks. This is especially true in industries in which network members have a large market share, such as automobiles, electronics, and machinery. As a result, more and more markets in Asia may become like the Japanese market, which is extremely difficult to enter for foreign firms (Yamamura and Hatch, 1997).

For Asian firms, these *keiretsu* activities bring two significant costs, which are analogous to those historically borne by small and midsize suppliers in Japan (Sakai, 1990). First, the technological capabilities of suppliers tend to be determined in large part by the long-term needs and strategies of large Japanese firms. These capabilities remain only at the level necessary to produce technologically less sophisticated products. Second, when demand declines due to product life cycle, currency fluctuation, or recession, suppliers, especially small Asian-owned ones, will be forced to reduce price and/or output—sometimes even to the point of bankruptcy (Business Week, 1997). Large Japanese firms are able to do this because they control critical resources and capabilities that Asian suppliers depend on and thus have stronger bargaining power over their suppliers (Pfeffer and Salancik, 1978). Asia's dependence on Japanese capital and technology shows up in national trade balances. While most Asian economies thrive on export growth, they usually run a trade deficit with Japan because they have to rely on capital goods and key components from Japan (Yoshihara, 1988). For example, South Korea, one of Asia's most export-oriented economies, saw its trade deficit with Japan rise from US\$3.72 billion in the first half of 1999 to US\$6.09 billion in the same period of 2000 (Asia Pulse, 2000).

In sum, the massive scale and scope of Japanese FDI in Asia, which one might call the “*keiretsu*-ization” of Asian industries, is a phenomenon with a profound impact that strategy researchers cannot afford to ignore. With this information as a backdrop, next, we explore how these activities can be used to draw important implications for theories of competitive advantage.

5. Implications for theories of competitive advantage

The *keiretsu* activities in Asia present fertile grounds for theorists to pay attention to the level of analysis when evaluating and developing theories of competitive advantage. In this section, we will follow the four guidelines proposed by Klein et al. (1994) to discuss these implications.

5.1. Specifying assumptions underlying theories

The first guideline, which Klein et al. (1994, pp. 206–207) suggested, is that “theory building is enhanced by explicit specification and explication of the level of theory and its attendant assumptions of homogeneity, independence, or heterogeneity.” By their very nature, *keiretsu* networks in Asia are multilevel, involving the activities that firms pursue, the relationship among member firms, and the relationship between the Japanese and local firms as well as their host economies. The rise of the *keiretsu* suggests that competitive advantage may not be centered around the firm but rather around the network. Biggart and Hamilton (1992) and Hamilton (1996) argued that “the firm,” with its clearly defined legal boundaries, does not have the same conceptual and empirical significance in Japan as well as in much of Asia. Most of our theories of competitive advantage, based on the experience of Western firms, may need to be revised to accommodate the blurring boundaries characterizing the *keiretsu*. Ito and Rose (1994, p. 48) argued that “We may have to expand our analytical basis from a single firm to a family of related firms.” Theories such as the resource-based view of the firm may need to be replaced by a resource-based view of the *firms*, whereby the basic unit of analysis is a related cluster of firms such as those in a *keiretsu* network. Developing this argument further, Dyer and Singh (1998, p. 661, original emphasis) suggested that “*idiosyncratic interfirm linkages* may be a source of relational rents and competitive advantage.” Therefore, competitive advantage may lie on *interdependence* of the firms in *keiretsu* network.

As a result, we suggest that the appropriate level of analysis for the *keiretsu* is the group or network level. By doing that, we assume that members of a *keiretsu* network are sufficiently similar to be *homogenous*. “Homogeneity among the members of a group is commonly considered a prerequisite for asserting that the construct in fact applies to that group” (Klein et al., 1994, p. 199). Specifically, we suggest that group members’ values, such as the interest in maintaining and extending the *keiretsu* network, are similar. The focus is on variation between groups of firms competing with each other (i.e., a particular *keiretsu* network vs. other *keiretsu* networks, indigenous Asian firms, and Western MNEs).

In comparison, a key assumption underlying firm-level theories of competitive advantage (Barney, 1991) is *independence*. Specifically, individual players within a group, such as firms within an industry, are largely independent of that group's influence. As a result, sources of competitive advantage can only be found at the firm level, namely, how individual firms possess and develop valuable, unique, and hard-to-imitate resources and capabilities, which give rise to their advantage (Barney, 1991; Teece et al., 1997). A third assumption underlying other theories of competitive advantage is *heterogeneity*, which suggests that the level of analysis is neither the individual firms nor the group or industry but "the individual [firm] within the group [industry]" (Klein et al., 1994, p. 201). Perhaps the best-known example is Porter's (1980) work on how the five competitive forces shape a firm's competitiveness within an industry. Specifically, a firm's competitive advantage is a function of its strengths and weaknesses relative to its competitors within the same industry. The focus is not only the individual firm but also the individual firm within the industry.

In sum, assumptions underlying theories of competitive advantage are crucial. The *keiretsu* vividly illustrates an assumption of homogeneity that is neither independence nor heterogeneity. Such a specification of the underlying assumptions increases the clarity of theory development.

5.2. Explaining sources of variation

Klein et al. (1994, p. 207) wrote that "theory building may be enhanced by specification and discussion of the sources of the predicted homogeneity, independence, or heterogeneity. Attention to these issues increases the depth and comprehensiveness of organizational theories." Theories based on heterogeneity may allude to a variety of factors, which may foster heterogeneity among firms within an industry or a market segment (Porter, 1980). A totally independent course of action is usually not feasible for most firms, which tend to face resource-dependence constraints (Pfeffer and Salancik, 1978). On the other hand, scholars predicting independence may point to individual firms' distinctive competencies, resources, and capabilities that underlie their competitive advantage (Barney, 1991). An independent course of action, especially the right move ahead of competitors, is believed to be able to generate significant advantage (Lieberman and Montgomery, 1988; Luo and Peng, 1999).

In comparison, members within the *keiretsu* are assumed to be homogeneous. This assumption does not suggest that there are no differences among member firms. Of course, there are differences in attributes, such as size, age, and power. Rather, this assumption focuses on the homogeneity in *behavior*, namely, the propensity in engaging in cooperation and specialization within the *keiretsu*. The underpinning of this assumption comes from the institutional perspective, which suggests that institutions, both formal ones such as laws and informal ones such as value systems, in a society shape and influence firms' strategic behavior (North, 1990; Powell and DiMaggio, 1991). Japan probably has one of the most culturally homogeneous societies (Dore, 1983; Hill, 1995). Many researchers argued that the emergence of *keiretsu* networks, at least in part, is due to unique Japanese cultural factors (Kay, 1993, p. 84; Williamson, 1985, p. 122). Such cultural homogeneity breeds a strong sense of group identity, which translates into in-group loyalty at the individual level and

within-group cohesion for member firms at the network level (Fruin, 1992; Gerlach, 1992). The cultural predisposition of the Japanese to recognize the importance of fulfilling reciprocal in-group obligations contributes to an atmosphere of trust that lays the foundations upon which the *keiretsu* system is organized (Dore, 1983; Hill, 1995). Compared with other societies, which do not share similar value systems promoting in-group loyalty, “the value system of Japanese society makes this economically efficient organizational arrangement [*keiretsu*] relatively easy to formulate and implement” (Hill, 1995, p. 128). In other words, the *collectivism* behind the cultural homogeneity is the source of economically efficient organizational arrangement.

In addition to cultural factors, the path-dependent nature of institutional evolution in Japan also fosters such homogeneity (Edwards and Sammi, 1997). The present-day *keiretsu* can trace its roots to the prewar *zaibatsu*, which was owned and run by members of the same family, who were presumably homogeneous in outlook. Although the US occupation dissolved the formal holding companies of the *zaibatsu*, connections between former *zaibatsu* subsidiaries, however, remained and became the basis of the postwar *keiretsu* (Gerlach, 1992). In other words, preexisting network relations proved a useful template upon which to further strengthen in-group homogeneity by building close ties within the *keiretsu*.

In summary, we may argue that *keiretsu* network should be understood in terms of interdependence rather than independence, network rather than firm, and collectivism rather than individualism. These three underlying logics, interdependence, network, and collectivism, are interrelated concepts. At the country level, cultural collectivism fosters cooperation among firms. This cooperation, if viewed from a structural standpoint, can be characterized as network. In addition, if we look into firms, we cannot adequately analyze them without examining their interdependence within the network. Therefore, the harmonious feature of cooperation behind three levels, firm, network, and country, adds competitiveness to the Japanese *keiretsu* network.

Since institutions affect firm behavior and theories are generalized from the experience of firms being studied in a particular society, we may regard existing theories such as transaction cost and resource-based view as “institutional” theories grown out of a particular institutional context in which Western firms are embedded (Peng, 2000). Knowing the different institutional context in which Japanese firms are embedded helps explain sources of variation in these assumptions.

5.3. Exploring alternative assumptions

As a third guideline, Klein et al. (1994, p. 208) suggested that “theory building may be enhanced by explicit consideration of alternative assumptions of variability.” While Japanese firms, especially those within the same *keiretsu*, do exhibit common traits, which give rise to the homogeneous assumption, we also need to explicitly consider alternative assumptions. First, not all Japanese firms are the same. Dyer (1996b), for example, reported that the Toyota network differs substantially from the Nissan network in Japan. Specifically, Toyota’s suppliers are located very close to the main assembly plants (averaging 31 miles for *keiretsu* members and 87 miles for independent suppliers), thus allowing for better coordination of

just-in-time deliveries (averaging eight deliveries per day) and more efficient dissemination of information and technology within the network. In comparison, Nissan's suppliers are located further way (53 miles and 172 miles for *keiretsu* members and independents, respectively). As a result, Toyota's network is "more specialized and more productive" (Dyer, 1996b, p. 287).⁴ Also at the network level, we can find differences. Vertical *keiretsu* is different from horizontal *keiretsu* (Lai, 1999; Namiki, 1999). Vertical *keiretsu* is composed of group of firms, mainly manufacturing companies and their subcontractors, and horizontal *keiretsu* is composed of large firms in different industries with a major bank or a trading company in its core (Lai, 1999; Namiki, 1999). Namiki (1999) argues that parent–subsidiary relationship in horizontal *keiretsu* is less hierarchical than those in vertical *keiretsu* since subsidiaries in horizontal *keiretsu* show higher selling and administrative expenses compared to those in vertical *keiretsu*.

More importantly, as the *keiretsu* moves to Asia to incorporate many Asian suppliers through FDI, whether the homogeneity assumption will continue to hold remains to be debated (Fukuda, 1993, 1995). In these "alien" institutional environments (Morris and Wilkinson, 1995), large firms may be unable to control member firms as tightly as they could at home simply because of cultural and social differences (Abdullah and Keenoy, 1995; Keys et al., 1994). Moreover, the Japanese have to deal with Asian governments, which often have an entirely different set of goals and agendas, such as developing local economies and obtaining foreign technology (Murtha and Lenway, 1994). Finally, Japanese wartime atrocities in many Asian countries may further lead to resentment among the local population if the Japanese try to establish overly tight control over Asian suppliers. As a result, there are a number of constraints that may lead to some relaxation of the assumption of homogeneity.

5.4. Discovering a new synergy

Klein et al. (1994, p. 208) further noted that "in clarifying and explicating the level or levels of theories, organizational scholars may discover a new synergy among the diverse subtopics of the field." The multilevel nature of *keiretsu* activities in Asia calls for harvesting the best available insights from multiple subtopics within the strategy literature as well as from other disciplines. Researchers who differ in focus and orientation may have something in common to learn from each other if they make common assumptions of variability. For example, human resource research on how the Japanese control their affiliates (Beechler and Yang, 1994; Choy and Jain, 1987; Fukuda, 1995; Taylor, 1999) may be of interest to strategists focusing on sources of competitive advantage (Dyer, 1997; Hill, 1995). Likewise, more descriptive work on Japanese activities in Asia (Fallows, 1994; Fukuda, 1993; Hatch and Yamamura, 1996) may be linked with more theoretical research on the competitive advantage of nations (Murtha and Lenway, 1994; Porter, 1990). In

⁴ The same study (Dyer, 1996b) also reported that the average distance between GM's internal parts divisions and its main assembly plants is more than 350 miles. Independent suppliers are located, on average, 427 miles away. Due in part to the longer distance between plants, GM suppliers deliver an average of 1.5 times a day, and GM engages in significantly less face-to-face contact with suppliers.

short, greater attention to levels, issues, and assumptions “may have a synergistic effect upon the field, allowing scholars to recognize the common elements that link their works” (Klein et al., 1994, p. 208).

Overall, *keiretsu* activities in Asia highlight the need to specify assumptions underlying different theories, the sources of such variation, the payoffs of exploring alternative assumptions, as well as the need to discover a new synergy among different subfields. These implications lead to a number of propositions that form the building blocks of a new multilevel perspective, which we turn to next.

6. A multilevel perspective on *keiretsu* advantage in Asia

Although multilevel theories are difficult to develop because of the complexity in specifying the same underlying assumption for different levels of independent and dependent variables, we believe that *keiretsu* activities in Asia present fertile ground to attempt such work. Based on the four guidelines proposed by Klein et al. (1994) discussed above, we suggest four multilevel propositions to sketch the contours of such an emergent perspective.

Proposition 1: The *keiretsu* will continue to provide competitive advantage for Japanese member firms in Japan and increasingly for Japanese and Asian member firms in Asia. The underlying assumption is that compared with outside, non-*keiretsu* members, Japanese and Asian members of the *keiretsu* are more homogeneous.

Specifically, Asian (and not just Japanese) members of the *keiretsu* are assumed to be more homogeneous than their non-*keiretsu* Asian counterparts and Western MNEs. Large Japanese firms engage in a number of practices to foster and enforce such homogeneity (Yamamura and Hatch, 1997). First, they send a disproportionately large number of expatriates to Asian affiliates compared with Western MNEs (Beechler and Yang, 1994). Fukuda (1995, p. 49) reported that the proportion of Japanese CEOs at overseas affiliates was higher in Asia than in the West: 93% in Asia, 82% in Europe, and 77% in North America. Japanese firms hire fewer local managers for key positions but try harder to keep them inside the firm once they do. Second, large Japanese firms rely more heavily on Japanese rather than indigenous suppliers but, again, try harder to maintain long-term relationships with those Asian suppliers who they have “cherry picked” to join the *keiretsu*. For instance, Belderbos and Sleuwaegen (1996) showed that in the electronics industry, while Japanese FDI decisions in North America and Europe were positively related to firm-specific intangible resources, those in Asia were mainly associated with human resources and interfirm ties. Third, large firms exploit their dominant position by pressuring their suppliers to do business only with them, to the extent of excluding business relationships with other Asian and Western firms. For example, when Chrysler was trying to secure contracts for components in Southeast Asia, Japanese joint venture suppliers gave it outright rejections. Leading firms in the *keiretsu* threatened to cut off relationships had Chrysler been allowed to contract with these suppliers. As a result, Chrysler had to source from domestically owned Asian suppliers, whose productivity and quality are

lower than those of Japanese-invested suppliers. Such hardball tactics should surprise nobody familiar with the behavior of the *keiretsu* in Japan (Lawrence, 1993).

Overall, through socialization, indoctrination, and intimidation, the *keiretsu* tries to maintain homogeneity with the group. Since such in-group homogeneity and exclusionary practices give the *keiretsu* competitive advantage at home (Dyer, 1996a,b; Walker, 1994), it follows, then, that the diffusion of such practices through FDI will continue to give the *keiretsu* competitive advantage in Asia.

Proposition 2: Compared with the attempt to replicate the *keiretsu* in other regions through Japanese FDI, the competitive advantage associated with the *keiretsu* practices will be the strongest in Asia.

While Japanese firms have also moved to North America and Europe, they have encountered difficulties arising out of significant cultural differences. Socialized in individualistic cultures, Western managers and employees may not share the high-level propensity to cooperate typically found among the Japanese (Beechler and Yang, 1994; Wilkinson et al., 1995). Operating in a strong antitrust environment, Western firms may be uncomfortable in participating the exclusionary practices of the *keiretsu*, which may be regarded as “collusion” (Kearns, 1992; Lawrence, 1993).

In comparison, Japanese companies may find it relatively easy to manage Asian operations and Asian firms may be more willing to accept the *keiretsu* practices. Several factors contribute to this observation. First, there are stronger affinities between the Japanese and Asian cultures, which manifest into similar business practices (Fukuda, 1993). As a result, the Japanese may have better “social knowledge” about how to operate in Asia. Defined as “one’s ability to understand and predict others’ general patterns of behavior” (Sohn, 1994, p. 295), social knowledge may allow the leading firms to select Asian members with desirable behavioral attributes such as a low tendency to engage in opportunism (Delios and Henisz, 2000; Makino and Delios, 1996). At the same time, better social knowledge also reduces the need to resort to a high-level ownership position at Asian firms, thus saving on investment capital (Makino and Beamish, 1998). On the other hand, Chinese (including Taiwanese and Hong Kong), Korean, and Southeast Asian firms have all been found to exhibit a strong propensity to engage in networking activities and build exclusionary enterprise networks (Hamilton, 1996; Peng, 1997; Ungson et al., 1997). Therefore, Japanese practices are not very “foreign” to them.

Second, Asian members of the *keiretsu* may have a strong incentive to remain within the “orbit.” Research showed that although *keiretsu* membership does not automatically guarantee higher profitability, there is much less fluctuation in the performance of *keiretsu* members compared with independent firms (Caves and Uekusa, 1976; Lincoln et al., 1996). *Keiretsu* member firms in Japan are found to be “more likely to recover rapidly from financial distress” (Lincoln et al., 1996, p. 85). Therefore, we can infer that Asian member firms are unwilling to break long-term *keiretsu* relationships with Japanese MNEs, because these Asian firms may prefer the certainty and protection that come with the affiliation with a *keiretsu* network. Such an incentive may be especially strong during turbulent times, such as

the post-1997 economic crisis, which has devastated most of the banking sectors throughout Southeast Asia and left the *keiretsu* to become the last resort for help (Business Week, 1997).⁵

Finally, large Japanese firms not only rely on trust, goodwill, and cultural affinity but also on strong bargaining tactics to achieve in-group loyalty. Just as they do at home, they typically employ a dual sourcing strategy (Richardson, 1993). Specifically, for critical components, they contract with an Asian member of the *keiretsu* and a Japanese member, which may have also invested in Asia. While the Japanese supplier may have been under pressure to invest in Asia in order to keep its share of the business, the Asian supplier is also under pressure to conform to the demands of the leading firm in fear of losing some work to its Japanese counterpart. As a result, large Japanese firms are able to wield enormous bargaining power in their dealings with Asian firms (Yamamura and Hatch, 1997).

Limited evidence of Japanese FDI performance seems to support this proposition. In 1993, for example, while Japanese affiliates lost US\$272 million in North America and US\$357 million in Europe, their affiliates in Asia earned an estimated US\$3.3 billion in profits (Yamamura and Hatch, 1997, p. 8). In 1998, because of the Asian economic crisis, sales of Japanese affiliates in Asia dropped considerably by 15.2%, compared with moderate increases in North America (0.8%) and Europe (3.3%) (MITI, 2000). However, sales in 1999 reversed such a trend: while sales of North American and European affiliates increased by 2.1% and 2.5%, respectively, sales in Asia increased by 5.6%. Further, a total of 60% of the Japanese executives in Asia surveyed by MITI (2000) expected even better sales in 2000. In other words, despite the short-term shock of the Asian economic crisis, in general, Japanese FDI performance in Asia seems to outperform that in North America and North. A partial reason behind such performance differences must be the better ability to manage *keiretsu* operations in an Asian context vis-à-vis other more “alien” institutional contexts such as North America and Europe.

Proposition 3: The competitive advantage of the *keiretsu* in Asia will not be as strong as it is in Japan, because Asian members of the *keiretsu* are not as homogenous as Japanese members of the *keiretsu*.

This proposition explores alternative assumptions of variability, which are critical when developing multilevel theories. Compared with the West, Asian economies may exhibit certain cultural affinities with the Japanese. But within Asia, there exists a tremendous amount of diversity, with varying degrees of acceptance of the *keiretsu*. As a result, large Japanese firms may not be able to control Asian members of the *keiretsu* as tightly as they could at home because of cultural differences (Abdullah and Keenoy, 1995; Fukuda, 1995). The more geographically dispersed operations throughout Asia lead to more difficulties in

⁵ During turbulent times, even leading firms may have difficulties. For example, due to the financial crisis in Thailand, Toyota had to close two assembly factories outside Bangkok in late 1997 (Business Week, 1997). However, research in Japan showed that especially during such times of turbulence, the *keiretsu* advantage becomes *stronger*, since the group hangs together and experiences less performance fluctuation than independent firms would (Caves and Uekusa, 1976; Lincoln et al., 1996).

coordination. For example, the Toyota-style location of suppliers may be difficult to replicate. Frequently encountered infrastructure bottlenecks in Asia, such as poor road systems, may cause further problems for just-in-time deliveries.

At the national level, Asian governments, fearful of Japanese domination in their economies, may seek to diversify sources of FDI and upgrade local capabilities. For example, in order to develop the “national car,” the Malaysian government negotiated technology transfer deals with Citroen of France and Rover of England in addition to Mitsubishi and Daihatsu from Japan (Yamamura and Hatch, 1997, p. 25). Likewise, the Indonesian government struck a deal with Kia from Korea for its “national car” project. Most Asian governments have also applied some pressure on the Japanese to speed up the slow pace of technology transfer (Fallows, 1994).

As a result, while the Japanese may have been trying very hard to replicate the *keiretsu* system throughout Asia, there will be some loss of “authenticity” simply because of the “alien” institutional environment in which the *keiretsu* now operates. As a result, the *keiretsu* may lose some of its competitive advantage typically found at home.

Proposition 4: At a more fundamental level, the *keiretsu* advantage comes from cooperative specialization among member firms; such cooperation leads to competitive advantage for leading firms of the *keiretsu* at the firm level, for other member firms at the group/network levels, and for Asian economies involved at the national level—with varying degrees.

This proposition ties research in several fields and at different levels together in order to discover a “new synergy” (Klein et al., 1994). The benefits of cooperative specialization, or asset specificity, have long been recognized (Williamson, 1985). *Keiretsu*’s ability to derive competitive advantage from such cooperative specialization in Japan has been widely reported. What is of central interest here is the attempt to replicate such advantage throughout Asia through the diffusion and extension of the *keiretsu*. While all members of the *keiretsu* share some benefits, the lion’s share of the benefits accrues to the leading firms (Lincoln et al., 1992). As noted earlier, they are able to benefit from increased specialization, extract price concessions from junior members, and control the pace of technology transfer, without the need to pay for the full costs of vertical integration.

At the group/network level, Japanese and Asian members of the *keiretsu* benefit with varying degrees. Because of the broad support network provided by the *keiretsu*, junior Japanese members are able to invest heavily in Asia. If they were independent, they would not have the resources to come to Asia en masse in recent years. To a certain extent, Asian members also benefit, because they are able to access Japanese capital, technology, and management and to produce more competitive goods for both the export and home markets.

6.1. Synthesis

Following the advice of Klein et al. (1994), we have paid careful attention to levels of analysis by (a) spelling out the attendant assumption of homogeneity among *keiretsu*

Table 1
The relational view on *keiretsu* advantage in Asia vs. other theories of competitive advantage

Dimensions (Klein et al., 1994)	Transaction cost/internalization theory (Dunning, 1993; Williamson, 1985)	Industry structure/national competitiveness theory (Porter, 1980, 1990)	Resource-based theory (Barney, 1991)	Relational view on <i>keiretsu</i> advantage (Dyer and Singh, 1998; Powell, 1990)
Level of analysis	Transaction/activity	Industry/country	Firm/resource	Network of firms (multilevel)
Underlying assumptions	Heterogeneity	Heterogeneity	Independence	Proposition 1: homogeneity
Sources of variation of the underlying assumptions	Transaction costs (bounded rationality, opportunism, uncertainty)	Five forces of an industry/four sides of the “diamond”	Value, uniqueness, and causal ambiguity (imitation difficulty)	Proposition 2: common cultural traits and institutional evolution
Alternative assumptions	Independence/homogeneity ^a	Homogeneity ^a	Heterogeneity ^a	Proposition 3: heterogeneity
New synergy	Blending “old institutionalism” with “new institutionalism” ^a	Linking traditional industrial organization and international trade theories ^a	Complementing and differentiating from transaction cost and industry structure views ^a	Proposition 4: linking the three previous theories

^a Cells not discussed in the text due to the lack of space.

members, (b) explaining the basis of such an assumption, (c) exploring alternative assumptions, and (d) drawing upon diverse subtopics within the strategy literature. Such an explicit attention to levels issues allows us to compare and contrast the relational view, which underlies *keiretsu*'s competitive advantage in Asia vis-à-vis other theories of competitive advantage (Table 1). At its core, this new perspective on *keiretsu* advantage in Asia is multilevel, linking the transaction/activity level (cooperative specialization), the firm level, and industry/country level. Each of these levels is the domain of an existing theory on competitive advantage. The relational view offers a distinct, but complementary, view on how *keiretsu* networks generate relational rents that underlie their competitive advantage.

7. Some caveats on the demise of the *keiretsu* in the Asian crisis

The *keiretsu* has not been without controversies, both at home and abroad. Believed to be a key “structural impediment” behind Japan’s seemingly exclusionary trading practices, the *keiretsu* has been singled out as a “nontariff barrier” to import penetration in Japan and under pressure to “reform” itself (Imai, 1990; Lawrence, 1993). A frequent Japanese response to such foreign criticisms is that the structures and institutions that underlie the *keiretsu* are changing rapidly since the 1980s and that its importance has declined significantly, thus not worthy of unwarranted criticisms. As Japan goes through its worst postwar recession in recent years, many of the journalistic accounts of Japan’s economy assume that dramatic change is underway (e.g., Business Week, 1998). Specifically, the recession may force firms to be more “market rational” in their transactions, thus weakening relationship-based *keiretsu* ties and leading some affiliates to leave the fold in search for new business. However, the empirical evidence available so far does *not* support such a “demise-of-the-*keiretsu*” hypothesis. For example, Tabeta and Rahman (1999, p. 328) found that although the *keiretsu* risk-sharing ties were indeed weakened during the globalization era (1985–1994) when compared with the previous, export-driven period (1973–1985), this difference is *not* statistically different at the 5% level. Lincoln et al. (1998, pp. 332–333) reported that *keiretsu*'s historical pattern of risk-sharing persisted in Japan well into the 1990s. As a result, Lincoln et al. (1998, p. 330) asked “If these risk-sharing activities are really important functions of Japanese business groups [*keiretsu*], why should firms abandon such tried and true mechanisms at precisely the time when they would appear to be most needed, that is, in Japan’s deepest postwar recession?”

While research actually mapping out *keiretsu*'s patterns over time in Japan is “meager” (Lincoln et al., 1998, p. 330), empirical work tracking *keiretsu*'s evolution in Asia is even more scarce (Taylor, 1999). To some commentators, the recent Asian economic crisis since 1997 signals the triumph of Western capitalism based on arms-length transactions over the Japanese and Asian counterpart centered on relational contracting (Bevacqua, 1998). As a result, if the *keiretsu* may have a hard time standing on its own in Japan, its advantage in Asia, as the reasoning goes, may be soon eroded and not sustainable in the region. While empirical evidence to assess this assertion is unavailable at the time of writing (October 2000–February 2001), we have amassed results from several reputable surveys, which shed some preliminary light on this

Table 2
Japanese vs. North American FDI intentions in post-1997 Asia

Results of two 1998 surveys	Japanese firms ^a (%)	North American firms ^b (%)
Next 3–5 years		
Unchanged	42	70
Reduce/stop	6	11
Increase	52	19
Long-term		
Unchanged	–	84
Reduce/stop	–	13
Increase	–	3

^a Sources: JETRO (1999a).

^b Sources: Far Eastern Economic Review (1998), reporting a UNCTAD survey.

issue. Specifically, a significant decrease of Japanese FDI vis-à-vis increase of American and European FDI in Asia would indicate some weakening of the *keiretsu*'s influence in the region. However, the limited evidence suggests that this may *not* be the case (Maclean et al., 1998). Shown in Table 2, at the height of the crisis in 1998, approximately 70% of North American companies surveyed by the United Nations Conference on Trade and Development (UNCTAD) had no intention to change their Asia-bound FDI within 3–5 years, 11% would reduce investment, and 19% would increase. But, for the long-term, only 3% of them were interested in increasing FDI in Asia, while 13% would reduce investment and 84% would stay unchanged (Far Eastern Economic Review, 1998). In contrast, 52% of the Japanese firms surveyed at about the same time (1998) by the Japan External Trade Organization (JETRO) planned to increase their investment in Asia within 3–5 years, while only 6% said they would scale back or stop operations in Asia (JETRO, 1999a). Only 15% of the Japanese respondents in a Japan Bank for International Cooperation survey (Kosumi, 2000) believed that US and European firms are making aggressive advancement into Asia, while 42% replied that there was no noticeable threat from their US and European competitors in Asia. As a result, the predictions that North American and European firms may be able to take advantage of the lower asset prices in Asia in the aftermath of the crisis in order to strengthen their competitive position relative to Japanese firms do not seem to materialize. In other words, given Japanese firms' historical dominance and continued interest in FDI in Asia, the *keiretsu* advantage in the region is not likely to weaken significantly as a result of the economic crisis since 1997.

Overall, we remain skeptical of the recent claims that the *keiretsu* is atrophying to the point of extinction in Japan and that its influence in Asia, if any, is soon to be competed away by the increase of American and European FDI in the region. While specific patterns of *keiretsu* activities do change (e.g., the recent trend to allow for more foreign nationals to head affiliates, Beamish and Inkpen, 1998), these changes tend to be incremental rather than dramatic. Historically embedded relationships linking firms through complex but long-term networks "have been and continue to predominate in Japanese industrial organization" (Lincoln et al., 1998, p. 333) and are likely to remain so throughout much of Asia as a result of Japanese FDI in the region.

8. Discussion

8.1. Contributions

“The non-Asian world is awash in information about political and economic developments in Asia. But, it lacks the right tools—the right theories—to give that information coherence and shape” (Fallows, 1994, p. 3). This article endeavors to provide a new theoretical perspective that can help explain and predict competitive advantage behind the emergence of the *keiretsu* in Asia, arguably one of the most recent and profound events throughout the region. It makes three contributions. The primary contribution is an attempt to develop propositions focusing on how competitive advantage is preserved and strengthened at *multiple* levels. Since most existing theories have been derived from the experience of Western firms, their underlying assumptions (i.e., independence and heterogeneity) have often been taken for granted (Peng, 2000). The *keiretsu* activities in Asia force researchers to pay attention to these levels issues and also point out an alternative assumption, namely, that of homogeneity for firms within the same *keiretsu* network. Porter (1990, p. 147) argued that “advantage is sustained when its sources are widened and upgraded.” Consequently, we suggest that Japanese competitive advantage is likely to be enhanced and sustained by widening the scope of the *keiretsu* throughout Asia and upgrading the linkages, which are formerly only among Japanese firms to include numerous Asian firms. Therefore, from a comparative perspective, *keiretsu* activities in Asia allow us to examine these important assumptions underlying different theories and to develop new ones.

A second contribution this article makes is to synthesize a large body of research on Japanese strategy and management into a coherent, multilevel perspective of *keiretsu* advantage grounded in an Asian context. Given the “Japanese management theory jungle” (Keys et al., 1994; Sullivan and Peterson, 1989), it is necessary to develop an overarching theoretical framework. However, as suggested earlier, no theory is “universal” and most theories are “institutional” ones grown out of a particular institutional environment in which firms are embedded and studied. Therefore, we neither claim that the perspective developed here is universal nor suggest that it pertains to all Japanese firms; rather, it only pertains to Japanese firms that have invested in Asia and Asian firms that have joined *keiretsu* networks. Although researchers have called for the development of new theories drawing upon the experience of non-Western, indigenous firms (Biggart and Hamilton, 1992; Peng, 2000), virtually all theories of competitive advantage grow out of research on Western firms. This article thus represents one of the few attempts to develop theory based on the experience of non-Western firms.

The final contribution is that the proposed perspective, due to its multilevel nature, can serve as a useful link connecting several streams of work in the strategy literature. First, at the transaction/activity level, it builds on transaction cost theory by highlighting the benefits of cooperative specialization among *keiretsu* members. At the firm level, the proposed theory is consistent with the central tenet of the resource-based view of the firm, namely, firms with valuable, rare, and hard-to-imitate assets will be able to derive significant

competitive advantage. At the group/network level, this article can be viewed as a step toward building theories of network organization. Drawing on the Japanese and Asian experience, the propositions expand the focus from the firm, with its clearly defined boundaries, to a cluster of firms in a network with blurring boundaries. Finally, at the national level, this article highlights how firms and networks can “export” an organizational form from one country to many others while trying to preserve and strengthen its competitive advantage. Porter (1990, p. 418) wrote that “Japanese industry is perhaps the most vivid example of the determinants of national competitive advantage working as a system.” We may add that the extension of the *keiretsu* to Asia perhaps represents a prime example of how such a system can migrate internationally.

8.2. Research implications

An obvious implication suggested by this article is to expand research on the *keiretsu* beyond Japan and into Asia. The literature has accumulated a sizable body of work documenting the competitive advantage of the *keiretsu* in Japan and, to a lesser extent, in North America and Europe. What is noticeably missing is work on the *keiretsu* in Asia. While human resource scholars have started to examine Japanese practices in individual Asian countries (Abdullah and Keenoy, 1995; Fukuda, 1995; Taylor, 1999), strategy researchers have yet to pay attention to Asia-based *keiretsu* activities. Perhaps the first step will be to undertake qualitative-based, country-specific studies in Asia building on Dyer’s (1996a,b, 1997) work in Japan and the US. Then, quantitative work following Chang (1995), Delios and Henisz (2000), Makino and Delios (1996), and Sohn (1994) can be attempted. Another fruitful route will be an explicitly comparative design, comparing and contrasting the *keiretsu* in Japan, Asia, and elsewhere (Cusumano and Takeishi, 1991; Gordon, 1994).

Given the importance of the level of analysis, researchers need to collect data in a way that ensures the conformity of the data to the level of the theory. In light of the underlying assumption of homogeneity, researchers are advised to use measures that focus on the unit as a whole and to maximize between-group variability (Klein et al., 1994). Thus, to test this homogeneous-group theory, it will be necessary to collect data from a large sample of *keiretsu* groups, using objective measures or expert ratings to obtain a single score, such as the propensity to cooperate among members and the reluctance to deal with outsiders, representing each group as a whole. As a result, the homogeneity of the data within groups can be ensured.

Since the proposed theory also allows for exploration of alternative assumptions of independence and/or heterogeneity (Proposition 3), it will also be interesting to use measures that draw attention to each manager’s or firm’s unique experiences and characteristics in order to maximize the variability between individual managers and individual firms from different backgrounds. Researchers may also wish to employ the same measures to managers and firms not affiliated with the *keiretsu* in Japan, Asia, or elsewhere.

No data collection strategy is “level neutral.” Overall, researchers are advised to simultaneously (a) direct respondents’ attention to the predicted level of theory, (b) maximize

the variability predicted by the theory, and (c) allow one to empirically test the theory's predictions of homogeneity, independence, or heterogeneity. In all cases, the use of multiple, diverse measures would be ideal.

9. Conclusion

Like the rest of the world, Asian economies are in a state of flux with rapid changes, which call for effective adaptation by managers and firms. The emergence of the *keiretsu* in Asia represents such an attempt of adaptation. Relying on a unique institutional environment at home, the *keiretsu* historically has been known for its highly integrated and internally consistent nature. Highly integrated systems, however, require compensatory changes throughout when one component changes or is manipulated significantly. How the *keiretsu* can transplant itself throughout Asia and preserve and strengthen its competitive advantage will not only influence the outcome of global competition in the new millennium but will also enrich our understanding of competitive advantage at multiple levels. As the field matures, the least we need now is the parochial thinking in mainstream organizational research limited by the experience of Western firms. A complete theory of competitive advantage has to take the experience of so many firms and networks in these Asian economies into consideration.

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