The Network Structure View of Global Markets: Theoretical Basis and Some Propositions

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Abstract

The purpose of this article is to present the importance of a network structure's effects on new market-based knowledge developments and acquisitions in global markets. Network structure of markets refers to the overall pattern of relationships of actors within which market is embedded. MNEs (participants or actors) are embedded in market networks of resources, information, and other flows. Typically, major competitors and primary customers are the members of networks in national or regional markets. In the discussion on a network structure view, 'a locally dispersed network structure of global market' can be a favorable condition for new market-based knowledge developments and acquisitions because a dense and closed local market network can be itself seen as a distinct source of new knowledge in overall global markets.

Keywords

global market, network structure, knowledge, resource, cluster

Introduction

The purpose of this article is to present the importance of network structure effects on new market-based knowledge developments and acquisitions in global markets. In recent years, scholars have focused on the issue of knowledge development in global markets—not only in home or leading markets, but in developing or emerging markets, as well. This issue arises when firms globalize and economic interdependence among nations increase. In addition, emerging economies have gained a much larger presence in global markets than was 10 years ago (e.g., reverse knowledge transfer). Despite increasing interest in this issue that how MNE can gain the benefits by participating at global markets, little is known about identifying the favorable external (or market) conditions for new market-based knowledge development or its effect.

Throughout a summary of the academic arguments over the last two decades, two research streams come out: the discussion on internal management effectiveness and external conditions.

The first area of interest stems from management issues pertaining to the

international transfer of critical knowledge generated in both home and host countries (Kogut and Zander, 1993). This can be called a knowledge-management view. Because of the difficulty of transferring knowledge grounded in the close ties within a regional network, knowledge can be packaged and transferred at a cost, rather not seen as public goods. Without organizational forms and management capabilities for international knowledge transfer, as well as finding valuable resources in different parts of world, country-specific advantages (CSAs)and firm-specific advantage (FSAs) cannot be exploited to leverage the competitiveness of firms at a global level.

The second stream can be seen as a knowledge-seeking view that focuses on identifying favorable locational conditions for effective knowledge development; this explains why the locations in different parts of the world bring certain aspects of competitiveness to a firm, the so-called location- or country-specific advantages (CSAs). This issue relates with the question where to locate. Local opportunities, regulations, infrastructure, local resource endorsements and access, and other local institutions are major sources of CSAs. Not only the home country but also the host countries give significant effects on new knowledge development today.

Previous studies have succeeded in revealing the mechanism through which knowledge-seeking FDI takes place, and what internal management issues underlie appropriate knowledge transfer and new knowledge development, which can result in future FSAs around the globe. Unfortunately, little is known about identifying the favorable external or market conditions of locations for new market-based knowledge developments and acquisitions. Market-based knowledge (downstream activities) includes, the capabilities for customer oriented product developments, brand management, customer relationship management, channel development and management, effective promotion practices, and sales force automations, is characterized, on one hand, as less transferrable because of its location bound-ness (Rugman & Verbeke, 1992; 2004; Collinson & Rugman, 2008), which means the original value will be more likely to stick to its location when local specific demand or opportunities are involved in the process of knowledge development. On the other hand, this can be seen as a source of competitive advantage because different market conditions, including specific demand, distinct competitive landscape for specific products or services and the existence of world-leading customers, may lead to finding distinctive knowledge to deploy to the global market presence (Craig & Douglas, 2000; Zou & Cavusgil,2002).

This article focuses on the benefits of the favorable conditions in a *network structure* for local markets as a part of an overall global market network. Previous studies have simply assumed the degree of location heterogeneity in global markets to be a source of competitive advantage; however they have not paid much attention to exploring the network structure of interconnectedness of major actors in its national or regional markets. By identifying the favorable conditions of network structure of markets, this

study makes two contributions to the literature on this subject. First, it recognizes theoretical basis and potential implications for the network structure view of global markets in market-based knowledge developments and acquisitions. Second, the study's research design provides insights into the effects of network structure by developing some important research propositions for future research agenda.

The General Location Effect on Knowledge Development

FDI and Location Effect

In the eclectic paradigm, early research works focused on the interaction between CSAs and FSAs of firms, whether as individual firms or as a reflection of the strength of the home country considered collectively (Rugman & Verbeke, 1992; Cantwell, 2009). FSAs include a firm's proprietary expertise or unique assets, patents and specific technologies developed primary at the parent company, while, on the other hand, CSAs provide a firm with the benefits associated with locating certain activities in particular countries. The research question in early years was "why should they exploit these advantages themselves, that is, by owning added value, rather than use the intermediate product market to license the right to do so to foreign-located firms?" (Dunning, 1998: 54). In summarizing these early works, it becomes clear that the major knowledge in MNEs (FSAs) has been developed in the home country when the initial FDI occurred. In general, the objective of FDI in the 1970s was the reduction of production cost in the invested country and it has led to more aggressive market-seeking FDI by transferring the home-based FSAs. However, in the 1990s, a new perspective on FDI was introduced in order to describe MNE activities in this period. Rugman and Verbeke (1992: 763) proposed two problems with internalization theory from the perspective of strategic management. The first problem is the assumption that an MNE's core FSAs normally originate in the parent company and that its FSAs are in principle non-location bound. Second is the assumption that the CSAs of host countries can only be used in a local and static sense. CSAs may contribute to the long-term development of new FSAs (or knowledge) that creates dynamic benefits to the corporation as a whole. As MNEs globalize their activities, foreign subsidiaries become insiders of the local market, able to access CSAs as well as local firms. New FSA development in host countries became the strategic imperative necessary to improve an MNE's competitiveness on a global basis in the 1990s. When FSAs in the host country have developed to respond to specific local opportunities, its FSAs may become location-bound FSAs, which benefit a company only in a particular location and are less transferrable abroad (Rugman & Verbeke, 2003: 130).

Despite this negative aspect, because different types of subsidiaries may need to have access to very different knowledge bundles from other affiliates and outside actors at the locations, different locations bring opportunities to develop distinctive knowledge.

Dunning indicated that one of the main differences of FDI in the 1990s compared with that of the 1970swas that the complementary foreign assets and capabilities sought by MNEs wishing to add value to their core competitive advantages (which developed in the home country) were increasingly knowledge facilitating, and a growing geographical dispersion of knowledge-based assets and need of firms to harness such assets from foreign locations were more important motives for FDI (Dunning, 1998: 61–62).

Today, differences between locations, including home and host or developed and emerging countries all have the potential to contribute to the new knowledge developments in global competition. This describes the view that MNEs prefer to invest in different parts of world in order to seek seeds of strategically useful FSAs (assets, knowledge, or resources) and actually develop them, although this does not describe the way to specify the favorable market conditions for the new knowledge developments. Without identifying the favorable locational conditions firms can't make accurate decisions on where to invest.

Cluster as Location Effect

The concept of cluster may provide a key explanation for location effects that supports effective knowledge development in the global arena. Access to local clusters has become one of the recent motives for FDI and location strategies of MNEs may add to their global competitive advantages. In this section, let the position take that the cluster view provides more insights for the purpose of identifying the favorable location conditions of market-based knowledge developments, compared with the conventional observations on location effects, which focused mainly on different national production factors.

The studies on clusters focus on the knowledge developed through the interactions among actors in certain geographic areas. This indicates that the static environmental conditions themselves are not enough to explain the rate of innovation and knowledge development; rather, the structure of dynamic relations among the actors who possess complementary and differentiated resources need to add on to the analysis. A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities (Porter, 2000; Tallman, et al., 2004). In a cluster, close linkages with buyers, suppliers, and other institutions are important for efficiency and the rate of improvement and innovation in the industry.

Porter (2000), who is a pioneer in this research field, indicates clusters' three impacts on a firm's competitiveness: (1) increasing current productivity of constituent firms or industries, (2) increasing the capacity of cluster participants for innovation and productivity growth and (3) stimulating new business formation that supports innovation and expands the cluster. The first impact is related to access to specialized inputs, employees, technologies and information that can provide superior or lower

costs and complementarities to the firm's resource for cluster participants. The second impact is most important for this article. Cluster participants offer and receive many potential advantages in innovation and improvement compared to an isolated location where there is no interaction with other members. Rivalry existing within a cluster forces firms to develop dynamic capabilities (Teece et al., 1997) that support innovation (Niu, 2009).

There are several opportunities for innovation in a cluster. First, by concentrating participants with buyers' knowledge and relationships in a cluster, firms in a cluster are more often able to clearly and rapidly perceive new buyer needs. Second, participants have more chances to gain an insight into evolving related and advanced technologies than non-participants. Finally, complementarities involved in innovation are easily achieved. Despite these benefits of participating in a cluster, one major negative impact is the tendency for clusters not to support radical innovation. Porter explained that the firm in the establishment cluster might suffer from greater barriers to perceiving the need to change and from inertia against serving past relationships that no longer contribute to competitive advantage.

While Porter discussed the cluster effect on both firms' and national interests and competitiveness, based on the international business context, Enright (2000) identified three models of a regional clustering (the development of multiple firms in the same or closely related industries in the same locations). The first view is an independent model that sees clusters as a form of organic economic development, in which local firms interact and then inject themselves into international markets, while the second is a dependent model which posits that clusters as a region of their own can't be generated rely on attracting the facilities of foreign MNEs. In this second model, cluster development is viewed as a policy tool to attract the investment of foreign MNEs into the local market or industry. The bridging of these two opposite cluster models leads to the third model, in which there is a great deal of interdependence between regional clusters and the strategies of MNEs. The main benefits for MNEs derive from making investments in local clusters with the objective of augmenting assets (Dunning, 1998), as is described by cases in which the MNE invests to gain access to specific capabilities present in a given location in order to enhance the assets that the corporation already possesses (Enright, 2000: 118).

In order to construct the more specific geographically favorable conditions for effective new knowledge development, seeing a cluster as a unit of analysis provides more insights for firms when they make decisions on their location choices, compared to the conventional discussion on location advantages. As Dunning noted, "the pull of the geographical clustering and networking of related value-added activities will have an increasing effect on the choice of location by MNEs" (1998: 52).Overall, the study of clusters suggests that the structure of dynamic relations among actors in certain geographical regions may be akey explanatory factor for the new knowledge

developments. This assumption clearly differs from the previous discussion on location choice for FDIs in international business studies. The discussion on a cluster focuses on the structure of network of participants, not just static locational conditions.

The Network Structure View of Global Markets

In the discussion of local marketing environments, the standardization and adaptation perspectives have been the dominant research streams in this field (Craig & Douglas, 2000; Solberg, 2000; Zou &Cavusgil, 2002), focusing on classifying and capitalizing on national differences in competitive conditions such as customer needs, competitors' resources and marketing infrastructure (including natural resources, service providers, distribution and advertising agents). However, the central question of what are the favorable external conditions that interactions among actors in a local market is focused on new market-based knowledge development in overall global markets remains unanswered.

The question to be answered here is what structure of network will be most effective for new market-based knowledge developments and acquisitions in global markets. In this section, let me propose a new way to look at global market structure by adapting the major discussions from social network analysis. Network structure refers to the overall pattern of relationships of actors within which market is embedded (Gulati et al., 2000: 205). In the business literature, Kogut defines an economic network as the pattern of relationships among firms and institutions. He stated:In this definition, an idealized market is a polar case of a network in which firms transact at spot prices and are fully connected in potential transactional relations but are disconnected through their absence of cooperating agreements. He pointed out that few markets of this ideal type exist; rather, most markets consist of sub-sets of firms and institutions that more intensely interact with each on a long-term basis (Kogut & Walker, 2001). These patterns of interactions encode the structural relationships that represent the network and this type of network structure has benefits for firms (Kogut, 2000: 407).There are two main benefits of a network structure that connected and disconnected respectively: *social capital* and *structural holes effects* (Burt, 1992; Gulati, 1998; Lin, 2001).

Social Capital as Network Resource

Social capital represents the benefits that come from strong relationships among actors within a network. In sociology, social capital is defined as a form of capital possessed by members of a social network or group (Coleman, 1988; Lin, 2001). It is defined as the resources embedded in social networks accessed and used by actors for their actions (Lin, 2001:25). According to Lin (2001), there are two types of resources an individual actor can gain access to and use: personal resources and social resources. While personal resources possessed by an individual may include ownership of

materials, social resources are accessed only through an individual's social connections. Burt (1992) defined social capital as a thing owned jointly by the parties to a relationship so that no one actor has exclusive ownership rights to it. By forming and sustaining the particular network, participants are embedded in networks of resources, information and other flows so that collective assets will be generated as social capital. There are three favorable conditions needed to build a local social capital: (1) network density, (2) strength of ties with members in the network and (3) closure. Density in the links or ties between members who are known to one another within a network may be more conducive to oligopolistic coordination (Coleman, 1988; Gulati, 1998; Gulati et al. 2000). A higher degree of strength of ties in a network will enhance relationships among actors and lead to similarities in the method of response, thereby adding value to customers. For the actors, it is easier to share ideas, such as a certain way to satisfy customers in the main segment to reduce uncertainty in future marketing-related investments. Closure network is another condition for social capital generation that maintains and enhances trust, norms, and authority among actors in a local network (Coleman, 1988). By being a member of the closed local network, individual actors may accept the value of the resource because they wish to remain members of the group or identify with the group and they are willing to accept the group's value even if they do not understand the resource's intrinsic merits (Lin, 2001: 30).

In recent years, in the business research field, there has been a growing interest in understanding the influence of the social context and network structure in which firms are embedded on their behavior and performance. In Kogut's discussion on supplier–auto manufacturer relationships, he posited that the network itself is knowledge because supplier–manufacturer relationships may involve more complex rules governing the process through which innovations are collectively produced and shared. Although being a member of social group provides a firm with opportunities to access and use social capital developed by all members of the group, withdrawing from this social relationship dissolves these opportunities. In this sense, dense and closed networks provide favorable conditions for the development and maintenance of collective capital in the group.

Firms in a closed and dense network tend to follow the same strategy simply by imitating succeeding competitor's resource bundles. This dynamic view of organizational transformation has been supported with DiMaggio & Powell's(1983) the concept of isomorphism that is a constraining process that makes one unit in a population to resemble other units that face the same set of environmental conditions. Because networks of interconnectedness among actors can be important sources of information for the participants (firms, competitors and customers in the marketing context), the pattern of ties among them influences their strategy formation and performance (Granovetter, 1985). It also diminishes uncertainty among actors (Gulati, 1998). Gulati identified shared understanding among actors through strong and

socializing ties as “relational embeddedness.” The main advantage for a firm of being a member of asocial network or group is gaining fine-grained information through cohesive ties among actors.

In the discussion about how firms benefit from the network structure, we can further develop the new view of the market-based knowledge-development process. Market-based knowledge can be defined as the set of know-how that offers benefits to existing and potential customers based on ideas and practices in the market that includes the capabilities for customer oriented product developments, brand management, customer relationship management, channel development and management, effective promotion practices and sales force automations. Because firms are cognitive enterprises, understanding how they process market information is a critical condition for organizational learning; it is the process by which information is transformed into knowledge (Day,1994; Slater & Narver, 1994; Sinkula et al., 1997). The concept of market orientation that attempts to learn from changes in environmental forces provides firms with better overall financial performance than those that are not market oriented (Day, 1994; Slater & Narver, 1994). For market analysis and understanding firms' competitive advantage, marketers need to apply both competitor-centered assessments which are based on direct management comparison with a few target competitors and customer-focused assessments which start with detailed analyses of customer benefits and gain feedbacks from them (Day & Wensley, 1988; Day & Nedungadi, 1994). Product markets can be determined by dynamic consensual knowledge structures that coordinated transactional relationships among sellers, customers and competitors within market network(Lambkin & Day, 1989; Rosa et al., 1999).

Rosa et al.(1999) represents the view to analyze product markets with socio-cognitive approach. In this view, the existence of product markets can be described by the network structure where the producers (include competitors) and consumers (or customers) bring product conceptual systems to bear on market interactions. Product markets are simply defined as socially constructed knowledge structures (Rosa et al. 1999; 64). Responding and adapting to customers and competitors are major sources of information on market-based knowledge development. In international marketing studies, this is referred to as local adaptation of a marketing plan and a process through which firms respond effectively to local market conditions to enable to build competitive positions there (Craig& Douglas, 2000; Solberg, 2000).

In this sense, market-based knowledge tends to be embedded within specific transaction networks (Hunt & Morgan, 1996). The dynamic relations among actors who possess complementary and differentiated resources add value on the location. Let's take two examples to reconfirm this effect of dynamic relations among actors in the network, one in automobile industry and another in retail business. Based on the classic arguments, Dwyer et al. (1987: 12) summarized the process characteristics of relational

exchange in a buyer and seller relationship: "Relational exchange participants can be expected to derive complex, personal, noneconomic satisfactions and engage in social exchange. Because duties and performance are relatively complex and occur over an extended time period, the parties may direct much effort toward carefully defining and measuring the items of exchange." In the market-based knowledge development process, firms make a series of investments in relation-specific assets(Dyer, 1996a, b, 1997; Dyer & Singh, 1998; Gulati, 1998; Takeishi, 2001, 2002). The previous literature which focuses on automobile industry implies that these close working relationships with the buyers' personnel and relation-specific investments for physical assets are necessary conditions for developing market-based knowledge. This may lead to the development and evolution of local market–embedded knowledge over time. Through continuous human contact between both parties, capabilities in just-in-time operations become unique functions that are rarely imitated by competitors (Clark &Fujimoto, 1997;Dyer & Nobeoka, 1998), especially competitors from outside of Japan.

Determining how firms are interconnected through not only traded with customers, but also non-traded transaction with competitors is the key for knowledge development in marketing (Tallman et al., 2004; Niu, 2009). The case that well represents the effectiveness of social capital generated in the non-traded transaction in the tied network structure of a national market is the success of 7-Eleven and other convenience store chains in Japan (the evolutions of convenience store industry in Japan). Although 7-Eleven is one of the world's best-run convenience store chains that originally started up in the United States, their success in Japan is a result of the adaption of local innovation attempts to cope with local competition and meet with local customer preferences, not an effective transfer of American knowledge (Ishikawa & Nejo,1998). In the 1980s, an increasingly diverse pattern of individualization among consumers developed in the Japanese market. To be able to respond to the changing market environment, 7-Evelen and other competitors needed to introduce an online technology that networked between stores, suppliers and headquarters to exchange and share sales data on a single-item basis at each store. This technology is known as a POS (point of sale) system and has been used as the primary tool for handling the item-by-item management process. Data from the POS system has also been used for new product developments and inventory controls. This moved the competition in the convenience store industry from a quantitative expansion ideal to a more quality improvement–type concept in Japan (Ishikawa & Nejo, 1998: 2).

With the market leadership taken by 7-Eleven Japan, the firms without traded transactions (competitors) also have generated its social capital. The rivals have been catching up and imitating the 7-Evelen's efficient supply chain system powered by POS and eventually the POS based supply chain management has become the industrial standard in Japanese market. This evolution pattern supports the social capital concept that firms in a closed and dense network tend to follow the same strategy simply by

imitating succeeding competitor's resource bundles. Individual actors may accept the value of the resource because they wish to remain members of the group or identify with the group and they are willing to accept the group's value.

Today, the world's top three largest convenience store chains in terms of numbers of stores on a worldwide basis are all owned and run by Japanese firms, namely, 7-Eleven (with over 33,000 stores), Family Mart (with over17,000 stores) and Lawson (with a little less than 10,000 stores). They all have installed and maintained POS systems with original labeled product develop capabilities in sustaining their competitiveness in the market, not only in Japan, but also in Asian markets because they all have learned from higher local competitions and interactions in Japanese market.

Structural Holes Effect

While the social capital perspective focuses on the benefits derived from being a member of a dense and closed network, other scholars have proposed that there are benefits to bridging two different local networks in an overall network. Remarkable work done by Granovetter (1973) in his dissertation focused on the benefits of linking network structure to personal job searches. He collected data about how people found their current jobs by asking the name of close contacts. The results showed that while jobs were never found through close contacts, information about job opportunities came through personal contacts that were often distant, such as high school friends. "The strength of weak ties" is another effect of network structure that represents how weak ties can integrate the flow of information from different social groups. This observation suggests that bridging between one *clique* (a local cluster or group in overall network structure; we name it for a local network in this paper) and another will provide extensive positive effects for new knowledge acquisition. Burt (1992) indicated that the spread of information about new ideas and opportunities must come through the weak or strong ties that connect actors in separate cliques. No matter how numerous its members are and how valuable social capital they have generated, one clique is only one source of knowledge, because actors connected to one another tend to know about the same things at almost the same time. Network efficiency can be measured by the number of non-redundant contacts in a network. Therefore, maximizing the non-redundant contacts maximizes the structural holes obtained per contact. Gulati indicated the importance of the informational role of the position an actor occupies in the overall structure of the network. Actors occupying similar positions need to be tied to the same set of other actors or similar sets of other actors(1998: 296).The structural holes that connect non-redundant contacts are the key to information (or knowledge development) benefits (Burt, 1992; Gulati et al., 2000).

For firms pursuing market-based knowledge developments and acquisitions in global arena, this discussion suggests that the major benefits that come from global market access can be attained by maximizing the number of accesses to non-redundant contacts

that represent different local markets on a worldwide basis. When each local network (market or clique) has developed its own knowledge, connecting the markets that are characterized as dense, having strong ties between members and closed from outside, a firm will receive benefits from resources of a locally dispersed market network. And market-based knowledge developed in a clique through strong interactions among major customers and competitors can easily be shared with members of a clique. This may decrease the value or rareness of the knowledge within the clique because everyone in this clique can access the knowledge that developed through the joint efforts of all actors. There may be a high similarity of products offered by members in the clique, however the knowledge in one clique may be new and rare to others outside of the clique. This explains well the reason why most studies in international marketing focus on maintaining effective coordination between parents and subsidiaries of MNEs, as we previously discussed in order to connect knowledge among different locations. One of the advantages of an MNE, compared with domestic competitors whose geographical reach of operations is limited, is occupying position in which knowledge from different locations can be connected in order to introduce knowledge from one location to other locations within the internalized organization.

From the perspective of the RBV(resource based view of the firm), then, important value-generating resources can be inimitable by outsiders because these resources lie in the firm's network of relationships. von Hipple (1988) found that in the semi-conductor processing industry, users were the developers of about 80% of the most important scientific instrument innovations and also the developers of most major innovations. He also found that much information needed byproduct and service designers (users and manufacturers) is sticky to its location (von Hipple, 2005). He saw that innovations developed by lead users will be based on better information about users' needs and locational context in general than those developed by manufacturers; however, it can be said that the value of innovation may stick to the location where it was originally created. von Hipple stated that information is often sticky, as has been shown by studying the cost of transferring information regarding fully developed process technologies from one location to another (2005: 67). Regarding to the cost involved in knowledge transfer, Kogut and Zander pointed out that outward direct investment from Italy is impeded by the difficulty of transferring knowledge grounded in the close ties within industrial and regional networks(1993: 517). Even through an internalized organization such as an MNE, knowledge transfer will have a cost for firms because knowledge generated within a clique of an overall network is location (clique)specific in nature. If the knowledge is network specific, then outsiders or new entrants are not able to access the information of the local network or clique, which locks them out of new opportunities (Gulati et al., 2000).

International marketing researchers have seen that local marketing environments, such as customer characteristics and desired benefits, key competitors and their

resources and marketing infrastructure, differ from one market to another, which requires a firm to substantially modify its competitive positioning to compete effectively in each local market (Craig & Douglas, 2000: 6). Firms in a closed national market compete with one another in their specific local context. This discussion indicates that when information is processed from a local dense and closed market (with customers and competitors)into an organization along with a process of market-based knowledge development, this developed knowledge may have a high degree of network specificity. This will lead to high inimitability by outsiders so that this particular knowledge tends to be new and rare to the firms outside of the local network.

Discussion and Propositions

Figure 1 shows two typical types of global market network structure and represents the favorable network structural conditions for new market-based knowledge developments and acquisitions of MNEs. Based on the network structure view discussed above, a locally dispersed global market network can be a favorable structure for new knowledge developments and acquisitions. First, because social capital will be generated and evolve through a dense and closed local network structure, a national marketing network can itself be seen as a distinct source of new knowledge. Second, from the structural holes perspective, when network efficiency can be measured by the number of non-redundant contacts, an open linked network, in which it is assumed that all major actors in global markets (including major customers, competitors and globally operating institutions) are linked to another, may not be a useful source of new knowledge development and acquisition. One network or cluster that connects all actors can be seen as one source of information so that actors in a network will share the same information. On the other hand, in a locally dispersed global market network a firm will have chances to access multiple non-redundant contacts. This provides better opportunities for new knowledge development and acquisition because developed and evolved knowledge in one clique can be new and rare to the outside firms who have not participated in its development.

To summarize our discussion above, market-based knowledge developments and acquisitions in global markets may be influenced by the network structure of a firm's global market access patterns. First, firms are better off to engage in being a member of a national or geographically limited market to develop local market-based knowledge that may be new and rare to the firms locates outside of the local network. Intensive interactions among local actors, including main customers, competitors and other local institutions, will generate social capital that could not developed by a single firm. Only by participating in a clique can a firm gain access to and utilize social capital, including "knowledge in the air," to develop knowledge that is new and inimitable by the rest of the global market, especially for potential customers and future competitors. Here I

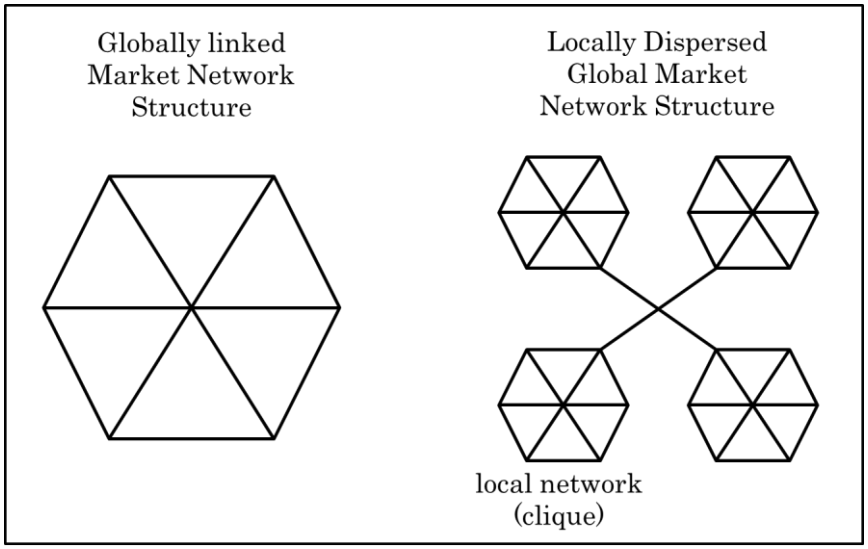

Figure 1 Two Network Structures in Global Markets

propose that the locally dispersed network structure of overall global markets is one of the key elements for new market-based knowledge developments and acquisitions. If we can assume the existence of a strong linkage between a focal firm and the primary customers and competitors in a market in the process of knowledge development, the resulting propositions are as follows:

Proposition 1: A high degree of strength of linkage between major customers and major competitors within a national market may be more favorable conditions for the process of new market-based knowledge developments.

Proposition 2: A high degree of closure in a local market network structure in the process of new market-based knowledge development will make the knowledge that more likely to become new and rare to the potential customers and competitors in outside of the network.
Proposition 3:Overall, a locally dispersed global market network structure can be suitable conditions for new market-based knowledge developments and acquisitions.

Implications and Limitations

This study proposes a new way to analyze global markets as external conditional factors for firms' market-based knowledge developments. It suggests paying more attention not only to national differences in the conventional marketing factors, but also to the network-structured embeddedness among major actors in a market. This simply implies that the market network structure should have some degree of effect on new market-based knowledge developments and acquisitions in the global markets. The

critical assumption was that a locally dispersed global market network structure could provide more opportunities for new market-based knowledge developments and acquisitions. When network efficiency can be measured by the number of non-redundant contacts, a globally linked network, in which it is assumed that all major actors in global markets are linked to one another, may not be a useful source of new knowledge developments because one network is one source of information. In contrast, a locally dispersed global market network will provide firms with more opportunities to access and deploy multiple non-redundant contacts. In terms of new knowledge development, evolved knowledge in one clique can be new to firms in another clique in the overall global market network.

This study focuses on development the theoretical basis on this subject; therefore the major limitation is the lack of empirical data to support those propositions. In future research it needs to test proposed propositions in this article. Another limitation can be found when we generalize this theoretical assumption for cross-sectional settings. The previous literatures suggest that a locally dispersed global market network can be more favorable conditions for the industries of culture bounded products and consumer goods, not for culture free and industrial goods markets. We need to take careful look into the influence of those external factors on new market-based knowledge developments for further empirical investigations.

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