Strategic Management Journal
Strat. Mgmt. J., **22**: 455–477 (2001)
D01: 10.1002/smj.167

GUANXI AND ORGANIZATIONAL DYNAMICS: ORGANIZATIONAL NETWORKING IN CHINESE FIRMS

SEUNG HO PARK[1]* and YADONG LUO[2]
[1]*Faculty of Management, Rutgers University, New Brunswick, New Jersey, U.S.A.*
[2]*School of Business Administration, University of Miami, Coral Gables, Florida, U.S.A.*

This paper focuses on the utilization of guanxi, which is an important cultural and social element in China, and the impact of guanxi on firm performance. Although guanxi is embedded in every aspect of Chinese social life, companies demonstrate different needs and capacity for guanxi cultivation. Chinese firms develop guanxi as a strategic mechanism to overcome competitive and resource disadvantages by cooperating and exchanging favors with competitive forces and government authorities. We develop an integrative framework theorizing guanxi utilization according to institutional, strategic, and organizational factors, and we explore the impact of guanxi on firm performance, primarily sales growth and net profit growth. Our findings, based on a survey of 128 firms in central China, provide strong support that institutional, strategic, and organizational factors are critical determinants of guanxi with competitive forces. However, only institutional and strategic factors are significant for guanxi utilization with government authorities. In general, guanxi leads to higher firm performance, but is limited to increased sales growth, and has little impact on profit growth. Guanxi benefits market expansion and competitive positioning of firms, but does not enhance internal operations.

Guanxi is a cultural characteristic that has strong implications for interpersonal and interorganizational dynamics in Chinese society. It refers to the concept of drawing on a web of connections to secure favors in personal and organizational relations. Chinese people and organizations cultivate guanxi energetically, subtly, and imaginatively, which governs their attitudes toward long-term social and personal relationships. Guanxi is an intricate and pervasive relational network that contains implicit mutual obligations, assurances, and understanding. It has been pervasive for centuries in every aspect of Chinese social and organizational activities. Modern Chinese society still operates within the realm of these countless social and business guanxi networks. It is thus critical for businesses in China, whether foreign or local, to understand and properly utilize guanxi in order to gain an edge over competitors.

The practice of guanxi stems from Confucianism, which fostered the broad cultural aspects of collectivism manifested in the importance of networks of interpersonal relations. Guanxi has been the lifeblood of personal relationships and business conduct in Chinese society (Xin and Pearce, 1996). In the present-day fast-changing Chinese environments, guanxi has become even more entrenched with strong and direct implications for social attitudes and business practices. Guanxi is a critical factor in firm performance in China, affecting the flow of resources and a firm's interaction with the task environment. As China continues its economic reform and property rights remain ambiguous, guanxi has become more

Key words: guanxi; organizational networking; firm performance; transition economy
*Correspondence to: Seung Ho Park, Faculty of Management, Rutgers University, Janice H. Levin Building, New Brunswick, NJ 08903, U.S.A.

Received 8 July 1998
Final revision received 15 November 2000

important to manage uncertainties and external dependency. Previous studies show that guanxi affects financial outcomes (Luo and Chen, 1996), market benefits (Davies *et al.*, 1995), and competitive advantages (Tsang, 1998; Yeung and Tung, 1996). Other studies show that these relationships are moderated by organizational forms (Xin and Pearce, 1996), relational demography (Farh *et al.*, 1998), and social processes (Redding and Ng, 1982). The extent of guanxi networking is idiosyncratic to the firm, which depends on various organizational characteristics, such as strategic capabilities and orientations, size, and history (Xin and Pearce, 1996). These organizational attributes also shape the setting for interfirm transactions that affect the financial and operational synergy of organizational networking (Ouchi, 1980).

This study presents an integrative framework of guanxi utilization based on these firm-specific attributes and examines its impact on firm growth and internal operation. The underlying premise is that Chinese firms utilize guanxi to manage organizational interdependence and to mitigate institutional disadvantages, structural weaknesses, and other environmental threats. In particular, we focus on institutional, strategic, and organizational contexts of the firm as antecedents to guanxi networking. Our empirical findings support the proposition that the extent and effectiveness of guanxi utilization depend on such antecedents. Guanxi cannot be viewed as a panacea even in network-based Chinese society; its effective utilization depends on its fit with institutional, strategic, and organizational attributes.

Survey data from 128 firms across various industries in central China are employed to test hypotheses derived from this conceptual framework. Considering the hybrid mode of transactions in China, i.e., a mix of plan and market, we focus on two distinctive applications of networking skills: horizontal connections with the task environment of suppliers, buyers, and competitors; and vertical connections with various levels of government and regulatory agencies. We define antecedents of guanxi according to institutional (i.e., ownership and location), strategic (competitive strategy), and organizational (size, history, and resources) attributes. Following a brief description of guanxi, the next section introduces a theoretical framework that leads to hypotheses on guanxi utilization and performance.

CONCEPTUAL BACKGROUND

Defining guanxi

Guanxi reflects delicate fibers woven into every person's social life and every aspect of Chinese society. It is deeply embedded in China's culture, with a history of more than 5000 years. Chinese society has been functioning as a clan-like network since Confucius codified societal rules, values, and hierarchical structures of authority during the sixth century BC. Guanxi operates in concentric circles, with close family members at the core and with distant relatives, classmates, friends, and acquaintances arranged on the periphery according to the distance of the relationship and the degree of trust (Yang, 1994). When a situation arises which is beyond an individual's capacity, the guanxi network is mobilized to accomplish desired results (Redding and Ng, 1982).

Confucianism is a social philosophy, rather than a religion, the main concern of which is to establish harmony in a complex society of contentious human beings through a strong and orderly hierarchy. It is based on the principle that human beings are fundamentally relation-oriented, which are predetermined and/or voluntary (Wank, 1996). In a predetermined relationship, one's status and responsibilities within the relationship, e.g., family, dictate behavioral expectations and individual desires are heavily downplayed. On the other hand, the individual plays an active role in determining the character and tone of each exchange in an external network beyond the predetermined relationship. This is a voluntary relationship where individuals can define their own roles. Interactions in a guanxi network become complex due to the dual roles of each individual, i.e., as a passive follower of the norm in a predetermined relationship and as an initiator of voluntary relationships (Yang, 1994).

Chinese society places great stock on the importance of face (*mianzi)*.[1] Guanxi dynamics

[1] In China, face can be interpreted as either lian or mianzi. However, semantically, we believe only mianzi (or value of lian) is pertinent to guanxi because it represents the primary social philosophies and cultural roots of guanxi. Lian philosophically differentiates while mianzi socially differentiates one from others in the society. A person's mianzi is often determined by his or her post, credibility, honesty, reputation, power, income, or network. Other things being equal, a guanxi relationship becomes stronger if one's partner is someone with superior mianzi.

emphasize the enjoyment of prestige without the loss of face and the saving of others' face (Hwang, 1987). The Chinese have traditionally compared 'losing face' to the physical mutilation of an eye, the nose, or the mouth. *Mianzi* is an intangible form of social currency and personal status, which is affected by one's social position and material wealth. It is imperative to maintain a certain level of *mianzi* in order to cultivate and expand a viable guanxi network (Yeung and Tung, 1996). One can also manipulate the dynamics within a guanxi network once one has strong *mianzi*.

Renqing is another Chinese philosophy related to guanxi. It is a form of social capital that provides leverage in interpersonal exchanges of favors (Yang, 1994). It represents an informal social obligation to another party as the result of invoking a guanxi relationship. It is a precondition to develop a guanxi network and to use the network for one's own advantages. As Chinese people weave a guanxi network, they are also bound by *renqing* obligations (Yeung and Tung, 1996). In essence, reciprocity—an implicit ideal of the guanxi network—originates from *renqing* (Tsui and Farh, 1997). When one disregards this reciprocal obligation, he/she loses face, hurts related parties' (i.e., friends and families) feelings, and eventually jeopardizes the guanxi network.

These philosophical foundations lead to several principles that characterize the guanxi network. First, guanxi is *transferable* among parties (i.e., A and C) related through a common connection in the middle (i.e., B). The extent of transferability depends upon the strength of the ties of A and C to B. Second, guanxi is *reciprocal.* A person is viewed as untrustworthy when he/she refuses to return a favor and he/she does not follow the rules of reciprocity (Alston, 1989). In Western networks, reciprocity often entails exchanges of roughly equivalent value (Powell, 1990). But, the Chinese guanxi network often links people across uneven ranks, with the weaker party calling for special favors without an equal level of reciprocal obligation. Third, guanxi is *intangible.* The long-term viability of guanxi depends on the members' commitment to the guanxi and to one another. Guanxi does not specify the range or frequency of exchanging favors. Guanxi members are tied together through an invisible and unwritten code of reciprocity and equity. Failure to respect the commitment substantially hurts one's reputation, leading to a humiliating loss of prestige or face. Finally, guanxi is *utilitarian* rather than *emotional.* It is based entirely on the exchange of favors, not an emotional attachment. Accordingly, the guanxi network does not necessarily involve friendship, although friendship is preferred.

Organization theory and strategic management literatures characterize networks as commercial and impersonal, but guanxi focuses on personal relations and the exchange of favors. Guanxi is social capital because it involves exchanges of social obligations and determines one's face in society (Hwang, 1987; Xin and Pearce, 1996). The reciprocal exchange of favors, which is not necessarily equivalent to commercial intents and may be called upon in the future, is essential to cultivate and sustain guanxi (Redding and Ng, 1982). Guanxi thus represents a powerful force to reproduce dense regions of relationships and to maintain and accumulate the value of inherited social capital. As Coleman (1990) suggests, the rules of reciprocity in guanxi establish a structural constraint that curtails self-seeking opportunism and preserves social capital within the existing network structure. Therefore, in China, transactions often follow successful guanxi, while in the West a relationship follows successful transactions. Guanxi is an important resource for individuals and firms in China to induce cooperation and govern relationships efficiently. Guanxi is also a valuable entrepreneurial tool to bridge gaps in information and resource flows between unlinked firms and between firms and important outside stakeholders. Given the uncertainty and confusion in China's transition economy, firms develop guanxi to broker structural holes and alter the existing network structure (Burt, 1992). Firms use guanxi to mobilize complementary benefits by arbitraging different networks and even potentially negotiating between competing networks.

Guanxi becomes an asset at the organizational level as personal relationships are dedicated to and used by the organization. Interorganizational guanxi, called *guanxi hu*, is built upon and expanded through personal relationships. A viable organizational-level guanxi requires strong relationships among key managers in the organization (Wank, 1996). As China continues its economic reform, guanxi utilization has become increasingly pervasive and intensive at the firm level. There are substantial rewards, such as commissions, bonuses, and promotions, for managers' personal guanxi utilized for organizational purposes to source key inputs and marketing products.

In this study, we focus on firm-level guanxi that reflect networks among organizations, or the links between firms and the task environment or government officials. Interfirm guanxi specifically refer to cross-organizational connections among managers, while guanxi with government authorities refer to personal relationships between firm managers and government officials. The next section reviews the literature on interorganizational networks as it relates to Chinese guanxi.

Guanxi as interorganizational networks

In recent years, networks and relationship building have become critical for the success and survival of organizations around the world. Interorganizational networks are thought to enhance the survival and capabilities of organizations by providing opportunities for shared learning, transfer of technical knowledge, legitimacy, and resource exchange (Nohria and Eccles, 1992). Organizations connect with others to acquire new technologies and to expand their product/market reach. Studies have shown that organizational and technological competency is often at the nexus of these networks.

The literature on organizational networks has grown dramatically in the last decade, based on a number of theoretical approaches. Indeed, Galaskiewicz (1985) argues that there is no one theory of interorganizational networks. Oliver (1990) also shows that the decision to initiate relations with another organization is commonly based on multiple contingencies. Consistent with the open-systems perspective, the resource dependence or exchange models have been the dominant organizational rationale for interorganizational networks (Pfeffer and Salancik, 1978). This model suggests that organizations are dependent on their task environment for inputs that are essential for their functioning. Since organizations cannot generate all needed resources internally, they must conduct exchanges with other organizations to obtain those resources. Because such resources are often scarce and organizations tend to compete for them, the resource dependence model focuses on interorganizational efforts to gain power and control over essential resources, while minimizing threats to organizational autonomy (Cummings, 1984).

Facing environmental turbulence, organizations are often not sure what strategic directions to follow. Sociological studies have extensively documented how ideas and know-how spread throughout a population via networks (Rogers, 1983). Firms use networks to overcome the uncertainty and distrust that plague economic transactions (Galaskiewicz and Wasserman, 1989). According to the sociological view, firms adopt networks as a mechanism to mimic successful firms' strategies under conditions of uncertainty. Galaskiewicz and Wasserman (1989: 456) argue that 'organizational decision makers see how other organizations cope with environmental conditions similar to their own and thus get some idea as to how to behave themselves.' Organizational decisions thus reflect the result of interfirm contagion within a network (DiMaggio and Powell, 1983). Organizations avoid uncertainty and enhance social legitimacy by mimicking others in the network.

The social problem-solving perspective suggests that when the larger social field within which relevant organizations are embedded becomes more complex and turbulent, organizations encounter problems and areas of uncertainty with which they cannot cope alone (Cummings, 1984). In general, open-system models predict that exchanges occur when two or more organizations perceive mutual benefits from interacting, such as gaining necessary resources (or legitimacy) or negotiating a more stable competitive order. Under the institutional perspective, organizations experience pressure to conform to common understandings of effective and efficient structure and behavior. The resource-based approach views legitimacy as a resource for organizations to obtain and exchange material resources. However, the institutional perspective argues that organizations gain legitimacy for their operations through isomorphism with the environment, i.e., by conforming to commonly accepted structures and procedures (Goes and Park, 1997). Guanxi networks expand information and resource access by widening the sweep of environmental scanning of an organization and by linking complementary assets in other organizations.

In contrast, economic studies view the organizational network as a connecting and transferring mechanism of complementary and interdependent competencies between firms. Teece (1986) emphasizes the importance of networks due to the wide dispersion and strong interdependency of organizational and technological competence across firms. The transaction cost theory portrays networks as an intermediate form of governance between market and hierarchy, i.e., a specific type of bilateral governance based on transactional reciprocity. The long-term reciprocity in a network is an attribute of hierarchy, but networks also maintain the benefit of market efficiency that flows from scale and scope economies (Goes and Park, 1997). China's recent economic transition has produced a high degree of institutional uncertainty (Nee, 1992). Accordingly, transaction costs remain high for firms to secure necessary inputs and legitimize their existence. As institutional uncertainty increases, firms more eagerly turn to guanxi networks to lower external dependence for key resources and to improve their legitimacy. Thus, a guanxi network helps a firm overcome the lack of resources to accommodate growth while alleviating substantial bureaucratic costs that would result from internalizing operations. Furthermore, in China there is a substantial institutional hurdle in transferring ownership, creating further needs for sharing through the guanxi network (Boisot and Child, 1988; Peng and Heath, 1996). As a loosely structured network, guanxi is an efficient mechanism to facilitate economic exchanges and to overcome administrative interventions by the Chinese government. Studies have indicated that a primary concern of Chinese managers and organizations is to engage in extensive networking activities through guanxi and various informal agreements to build trust and exchange favors (Kao, 1993; Tsui and Farh, 1997).

Others have argued that organizational networks generate benefits through synergy and expanded market power (Thorelli, 1986). Networks provide member organizations greater access to human and financial resources, knowledge, and management expertise (Oliver, 1990). In a collaborative relationship, member organizations can be conceptualized as chains of distinctive components. By specializing in areas of core competence, while expanding the scope of the overall production function to encompass the competence of partner firms, each organization can achieve economies of scope through a reconfigured value chain (Miles and Snow, 1984). By linking together, organizations expand their product and market reach and exercise greater market power than freestanding competitors. As market information is greatly distorted in a transition economy, the guanxi network becomes a reliable source of necessary information for the making of strategic decisions. Adopters of network strategies may also enjoy an 'early fit' (Miles and Snow, 1984), providing opportunities to exercise greater political influence, establish standards of legitimacy, control valuable information, or broker new cooperative arrangements. Smaller or newer organizations can overcome legitimacy barriers through involvement in guanxi networks, thus gaining wider opportunities to influence the local, political, and/or regulatory environments.

HYPOTHESES

The network literature addresses the diverse motivations for network creation, primarily the economic, social, political, and institutional factors. In a comprehensive review, Oliver (1990) identifies six organization-specific contingencies that are generalizable determinants of networking among organizations: necessity, asymmetry, reciprocity, efficiency, stability, and legitimacy. Guanxi utilization depends on institutional, organizational, and strategic contexts unique to a firm. The intensity and nature of the guanxi depend on each firm's idiosyncratic organizational and institutional attributes. Managers and firms seek out organizational connections and cultivate personal relationships to meet specific needs for resources, political protection, or legitimacy, which otherwise would be unavailable (Nee, 1992). Given the lack of a stable legal and regulatory environment, such connections are critical to managers and organizations in China to facilitate impersonal business activities (Alston, 1989). In particular, organizations in China receive different treatment and resource allocations from the government depending on their institutional and organizational orientations, such as ownership, size, experience, and skills. Therefore, there is a great deal of variation across Chinese firms in terms of their institutional advantages and disadvantages (Nee, 1992). These organizational variations are sustained because they are deeply embedded in the social, institutional, economic, and political systems (Perkins, 1994).

Firms are also idiosyncratic in their ability to scan information, handle information uncertainties, and benefit from information exchanges (Tung, 1979). They thus have different levels of need and different capacities to utilize and sustain the guanxi network. Although guanxi is embedded in intricate and informal personal relationships, interpartner complementarity in terms of strategic needs, organizational skills, and competitive strengths is still a necessary condition to cultivate and sustain the guanxi network. Network complementarity depends on the specific organizational traits of the member companies. The resource-based view posits that firms are heterogeneous with respect to their resource/capability endowments (Barney, 1991). Further, resource endowments are sticky over any strategically relevant time frame. Therefore, firms with heterogeneous and sticky resources/capabilities perceive differential opportunities and needs for the guanxi network. The mix of skills, knowledge, resources, environmental vulnerability, and institutional legitimacy depends on each member's organizational and institutional attributes (Shenkar and Von Glinow, 1994). Firm-specific settings thus determine the level of guanxi utilization and its influence on performance. In the following section, we characterize organizational attributes according to institutional, strategic, and organizational factors as antecedents to guanxi utilization. In particular, we focus on the ownership structure, location, strategic orientations, resources, size, and history of Chinese firms.

The paper delineates the guanxi network in terms of connections with the task environment and government officials that are two distinctive applications of networking skills in China. The guanxi network in China is the lifeblood of the business community and of the institutional context (Kao, 1993). Therefore, guanxi operates not only horizontally with other organizations in the task environment, such as suppliers, buyers, and competitors, but also vertically with various levels of government and regulatory authorities (Luo and Chen, 1996). In the absence of clear property rights, the extent of guanxi often affects decision making of government officials, who thus exercise personal preferences in lieu of strict legal interpretations of rules. Instead of subscribing to the abstract notion of impartial justice, organizations may rely on personal contacts with government officials to get things done. For example, scarce resources are allocated according to guanxi rather than based on bureaucratic rules. Despite the ongoing economic reform to decentralize government control, the central government still controls resource distribution, investment size, industry structure, bank loans, and business formation in strategic sectors. Business activities still depend to a large extent on administrative interference rather than on the market mechanism (Rawski, 1994). Accordingly, government officials maintain power to ratify projects, allocate resources and materials, arrange financing and distribution, and provide access to infrastructure. Firms strive to reduce their quotas specified in government contracts to generate extra profits by selling excess supplies in the market. Firms attempt to secure supplies of key inputs through government channels at lower costs. Guanxi with officials also offers protection against environmental uncertainties (Child, 1994).

Institutional factors

Ownership structure

Institutions regulate economic activities through formal and informal constraints and by setting the rules of the game as a basis for production, exchange, and distribution (North, 1990). Economic activities are shaped within the institutional framework because such a framework dictates which organizational actions are accepted and supported (Aldrich and Fiol, 1994). Human and organizational interactions take place within the institutional framework. Accordingly, the institutional framework places constraints on the firms' strategic choices (Peng and Heath, 1996). Firms also react differently in adapting to institutional pressures (Oliver, 1991). In China's transition economy, institutional impacts are manifested in ownership structure and location of the firm.

Despite ongoing attempts to facilitate market transactions, China's economic reform remains incomplete, with a mix of both plan and market systems operating in the economy. There is a great deal of ambiguity regarding property rights and production factor markets are inoperative, which is why the survival of firms largely depends on their networking with local governments. Private firms have grown quickly, while control of financing and key scarce resources largely remain with the state. Until the early 1980s allocations for private firms were restricted. The ambiguity of property rights has generated a new form of opportunism among entrepreneurs and state and local governments. At least until the early 1980s, state or local governments maintained full control over the redistribution of capital and important raw materials. Private firms had to compete with state-owned firms for scarce resources. It is not surprising to find that private firms were often left out of business opportunities due to a lack of materials even if their products were popular in the market. They lacked legitimacy and political backing to secure access to capital, which forced them to turn to private resources and to pay much higher rates (Nee, 1992). Private firms also faced a great deal of political uncertainty. Their survival depended on the unreliable market rules of the game set by the government.

Given such institutional uncertainty, private firms nurture a long-term-based reciprocal relationship with local governments through various formal and informal ties (i.e., guanxi) to economize on transaction costs. Guanxi with local governments also helps firm settle negotiation deals (Pye, 1995). China's transformation has thus given rise to a distinctive institutional form, called 'network capitalism' (Boisot and Child, 1996). As the number of nonstate-owned firms exploded during the 1980s, state-owned firms started practicing a 'contractual liability lever' in their management and reward systems (Yeung and Tung, 1996). Facing ineffective factor markets and ambiguous property rights, the guanxi network substitutes for government-instituted, formal channels of resource allocation and dispersal. Thus, we hypothesize:

Hypothesis 1: Nonstate-owned firms are more likely to form guanxi than state-owned firms.

Location

Favorable location becomes a source of competitive advantage for incumbents if they can acquire the location at a price less than its true value (Barney, 1996). During the economic reform in the 1980s, the Chinese government set up special economic zones to lure foreign direct investment (Park, Li, and Tse, 1997). These areas offer various benefits, like low-cost labor, tax exemptions, and duty-free importation of raw materials and technology. Infrastructure support and investment incentives in these areas allow for lower operating risks and higher efficiency and returns. As centers of market-oriented growth leading to strong competitive incentives, they are attractive host locations for foreign firms.

For these reasons, there are wide variations in the level of economic development and the stage of economic reform across regions, especially between the open and nonopen economic regions. Accordingly, these regions reflect differences in cultural environments, business atmosphere, and government policies. Open areas, such as the special economic zones, generally maintain more Western-style business facilities and a Western cultural atmosphere. Therefore, organizations in open areas tend to rely on arm's-length relationships for transactions more than those in nonopen regions due to enhanced market competition among organizations (Punnett and Yu, 1990). On the other hand, nonopen regions experience much lower levels of interfirm competition and reflect much stronger collectivistic traditions than open regions. In nonopen regions, firms maintain a much stronger tendency to collaborate with other firms and with government officials to overcome potential disadvantages of competing with those in open regions. Due to less preferential treatment from the government, in terms of taxation, financing, and resource allocation, firms in nonopen regions are pressed to rely more on guanxi connections to compensate for such constraints and disadvantages in the institutional environment. This leads to:

Hypothesis 2: Firms in less open economic regions are more likely to develop guanxi networks with the business community and government authorities.

Strategic orientation

The strategy field presents numerous classification schemes to illustrate the dimensions of business strategies. The configuration approach characterizes firms according to various sets of organizational and strategic orientations. There are several typologies, such as those of Miles and Snow (1978), Porter (1985), and Miller and Friesen (1983), representing the configuration approach.

These strategic configurations all focus on a business's relative emphasis on *market effectiveness vs. operational efficiency*. For example, the Miles and Snow framework distinguishes three distinctive types of business strategies, i.e., Defenders, Prospectors, and Analyzers, while Porter focuses on Overall Cost Leadership and Differentiation according to a firm's relative focus on market effectiveness and operational efficiency.

The strategic orientation toward market effectiveness (e.g., Prospector or Differentiation) continually searches for market opportunities and experiments with emerging trends and technologies. Firms following the market-oriented strategy concentrate on scanning, identifying, and capitalizing on emerging market opportunities and value being 'first' in new product and market areas. They also bear high costs and risks in maintaining extensive and flexible capabilities to respond to institutional and economic changes in a given market. Managers in market-oriented firms choose from a wide variety of options and emphasize exploring novel ideas and strategies to respond rapidly to early signals of opportunity in dynamic markets. Therefore, market-oriented firms face a much greater probability of failure and a higher level of outcome uncertainty as they explore new options (Rajagopalan, 1997). In sum, the market-oriented strategy reflects the availability of multiple options, low behavior programmability, high cause–effect ambiguity, and outcome uncertainty. Market-oriented firms may thus have higher needs for guanxi networks to mitigate the uncertainty and risk posed by their innovative and aggressive strategic orientation. They also emphasize communicating with local markets and spanning boundaries to accommodate dynamic changes and needs for expansion as they strive to identify and capitalize on emerging market opportunities (Venkatraman and Prescott, 1990). The higher level of uncertainty in the transition economy further induces market-oriented firms to seek guanxi to deal with competitive forces in the task environment and with government officials. Market-oriented firms can minimize uncertainties and secure necessary inputs through a guanxi network.

In contrast, the efficiency-oriented strategy (e.g., Defender or Overall Cost Leadership) is rigid, short-sighted, nonadaptive, and risk-averse. Efficiency-oriented firms tend to focus on increasing the efficiency of existing operations through continual improvements. These firms often develop cost-efficient single core technologies and seldom adjust their internal orientations. While the market-oriented strategy enacts dynamic environments and builds the prime capability to find and exploit new product and market opportunities, the efficiency-oriented strategy strives to serve stable and narrowly defined products or market domains efficiently (Miles and Snow, 1978). As efficiency-oriented firms emphasize operational efficiency, they tend to ignore environmental changes that have little impact on their current operations. This type of strategic orientation is basically an internally oriented approach that pays little attention to external changes or opportunities. Overall, the efficiency-oriented strategy reflects restricted managerial options, more emphasis on historical precedents and programmability, less cause–effect ambiguity, and less risk and outcome uncertainty (Rajagopalan, 1997). Therefore, these firms have little need for guanxi and network building with external competitive forces or government officials. Moreover, during the recent economic transition guanxi cultivation has become very costly, such as in the paying of 'management fees' to government officials to secure political protection and reliable access to scarce resources. This further discourages efficiency-oriented firms from pursuing guanxi. This leads to:

Hypothesis 3: Firms are more likely to utilize a guanxi network as their emphasis on a market-oriented strategy increases.

Organizational factors

Size

Firm size is an important attribute that shapes behaviors and decisions in a firm (Nadler and Tushman, 1988). As size increases, so do the bureaucratic structures, thus making it difficult to have a personal, entrepreneurial style of management. Shan and Hamilton (1991) present empirical evidence to show that small firms are more likely to cooperate with other firms than large firms. Small firms look for external support to enhance environmental scanning and to overcome the lack of key resources and technologies. Managers in large organizations are less inclined to adopt participative managerial attitudes, while those in smaller organizations are more flexible in decision making. In general, size affects organizational culture, ownership structure, and agency relationships (Aldrich, 1979). Size also affects a firm's capability to handle the task environment. Large firms have more favorable access to capital. Hall and Weiss (1967) show a positive relationship between absolute firm size and profitability due to enhanced scale and scope efficiencies.

In China, most large firms are descendants of the old planning system. Prior to the reform, it was the state that determined the scale of a firm. Size had a direct link with management perks and status and there was a precise correspondence between size and the government hierarchy. In addition to the lack of support from the government, small firms in China also had little bargaining power with the government, subjecting them to frequent government intervention and hindrance (Perkins, 1994). On the other hand, large firms lack competitive and entrepreneurial mindsets because most of them are under government protection. Large firms in China thus have few incentives to cultivate guanxi with competitive forces in the task environment or with government officials. Xin and Pearce (1996) assert that small firms in China stress the importance of personal and organizational connections with external stakeholders to counteract their liabilities due to size. Establishing guanxi with government officials is critical for the survival and growth of small firms in China, allowing them to overcome institutional disadvantages.

The population ecology literature addresses the direct negative relationship between size (and age) and organizational survival due to the lack of external ties and legitimacy (Freeman, Carroll, and Hannan, 1983). Organizational survival and performance thus improve as a firm becomes larger (Singh, Tucker, and House, 1986). Guanxi networks are a primary mechanism for small firms in China to overcome the liability of their size and other competitive disadvantages. Although small firms do not have the necessary organizational capabilities to compete with large firms, they have strategic and operational flexibility. Their entrepreneurial spirit allows them to cultivate guanxi networks easily and to offset their institutional and competitive disadvantages. In sum, while small firms have more critical needs for external buffers, their size allows them more flexibility to cultivate guanxi. Therefore:

Hypothesis 4: Small organizations are more likely to utilize guanxi networks than are large organizations in China.

Resources

The resource-based view posits that sustainable competitive advantage stems from valuable, rare, and inimitable resources that firms develop over time (Barney, 1991). Technological skills and managerial capabilities are particularly relevant for guanxi development in Chinese firms. Technological skills are important for organizational competence (Prahalad and Hamel, 1990). They allow for the development of new products and processes and for the potential to adapt to changing market dynamics. The resource dependence framework suggests a lower level of external dependence for firms with superior resources and capabilities. This implies that firms have fewer needs for guanxi networks as their technological skills improve. In a transition economy, superior skills also allow firms to have strong bargaining power with the government, whose primary goal is fast economic development (Child, 1994). Firms with superior technological skills thus have little need for connections with government officials and regulatory agencies. In fact, the building of guanxi represents an overinvestment for such firms. Instead of external networking, Prahalad and Hamel (1990) indicate that firms with superior technological skills tend to maintain a higher level of internal technological interdependence. Internal networking improves scope-based economic gains by leveraging the skills across its own business units while preventing potential leakage of capabilities to competitors. On the other hand, firms in China with poor technological skills utilize guanxi as a competitive instrument to overcome their competitive disadvantages by securing deals from suppliers, orders from buyers, and approvals from the government (Shenkar, 1996). Given inoperative factor markets and ambiguous property rights, the guanxi network is an economically and culturally viable mechanism to offset technological disadvantages. Thus, we hypothesize:

Hypothesis 5: Firms with poor technological skills are more likely to utilize guanxi networks *than those with superior technological skills.*

Managerial skills are important for building organizational competence; they are difficult to imitate because they are scarce, specialized, and tacitly embedded within the firm (Amit and Schoemaker, 1993). As the transition toward the market system continues, there is an increasing need for such managerial capabilities even though they are still rare resources in China. Managerial skills are embedded in complex social systems involving various social and cognitive processes that are not yet well understood (Barney, 1991). Due to their specificity, managerial skills are difficult to transfer to other organizations or to imitate; thus they bestow considerable competitive advantages on a firm. Given that the guanxi network is a substitute for competitive disadvantages, Chinese firms with superior managerial capabilities may have relatively fewer reasons to resort to a guanxi network. Previous studies report that Chinese firms lacking managerial skills tend to pursue more guanxi-based business strategies, such as sales force marketing and credit liberalization in purchasing. In China, direct personnel marketing is primarily a reflection of guanxi contacts. Sellers try not to embarrass customers who are temporarily unable to pay in a culture where guanxi is painstakingly nurtured and harmony is a high priority. On the other hand, organizations with strong managerial capabilities tend to pursue guanxi-free business strategies, such as advertising, internal R&D, pricing, and/or product/service quality. This leads to:

Hypothesis 6: Organizations with poor managerial capabilities are more likely to utilize the guanxi network than those with strong managerial capabilities.

Length of operations

Organizational history is also an important determinant of legitimacy, strategic behaviors, and guanxi cultivation. History shapes the organizational culture by affecting values and beliefs that have developed over time. Organizational age reflects institutionalized managerial attitudes and beliefs (Baker and Cullen, 1994). The population ecology theory assumes that inertia is a prevailing property of organizational evolution and, consequently, organizations retain basic attributes of their early forms (Freeman *et al.*, 1983). Young organizations are subject to the liability of newness because routines are rarely perfected and stabilized, organizational politics are unstable, and links with key actors in the environment are irregular. It takes time for an organization to acquire institutional legitimacy among its members and to become valued in its own right. On the other hand, older organizations are highly entrenched with bureaucratic rules and systems, and lack entrepreneurial values to adapt dynamically to environmental changes.

New organizations, therefore, need to be more proactive and aggressive in searching for external resources that are essential for their survival and growth. Young organizations in China, particularly those formed during the recent economic reform, are more entrepreneurial than are older organizations; they are primarily based on market-based incentive systems and follow tight budget constraints (Park *et al.*, 1997). These organizations are more flexible in choosing the right modes of operations to adapt to market needs, and their main goal is maximizing profits instead of serving society, which is the goal of the older, state-owned firms. Therefore, we expect stronger and more active guanxi utilization by newer organizations in China to compensate for their lack of legitimacy and competitive resources. Guanxi also provides newer firms with risk-reducing capabilities. This leads to:

Hypothesis 7: Newer firms are more likely to utilize guanxi networks than older firms.

Guanxi and firm performance

In the network literature, there is ample empirical evidence that interorganizational ties improve performance for the whole group (Van de Ven and Walker, 1984). Based on several case studies of hospital networks, Thomas and Trevino (1993) show that networks are able to improve performance by reducing uncertainties and equivocality in decision making through proper information-processing mechanisms. Unlike studies that focus on collective performance at the network level, several recent studies explore the impact of networks on individual firms (Goes and Park, 1997; Pennings and Harianto, 1992).

Sociological studies of networks focus on organizational isomorphism, mortality, and survival (Miner, Amburgey, and Stearns, 1990). They suggest organizational ties buffer firms from failure and provide survival advantages, even under intense levels of competition or during organizational transformation. Several recent studies in the strategy literature have addressed the impact of organizational ties on firm-level strategic decisions and outcomes, such as service development or innovation. Pennings and Harianto (1992) present strong evidence supporting the enhanced adoption of innovations among networked banks. Goes and Park (1997) also show wide diffusion of service innovations among hospitals tied together through direct and indirect networks, by facilitating the sharing of information, resources, and managerial capabilities. Miles and Snow (1984) imply that cooperating firms also benefit from political influence, controlling information, and brokering new cooperative arrangements. The guanxi network is more than merely a symbolic representation of personal and organizational ties. It is a utilitarian mechanism whereby resource exchanges occur independently of the active, conscious participation of the organizations and individuals involved. As posited by resource dependence theory, resource transactions among guanxi members show the degree of influence on organizational decisions shared by cooperating firms. As organizations continue their interactions with other firms and government officials through the guanxi network, there is a deliberate and unintended diffusion of information and accumulation of resources and capabilities. Cooperative firms in the guanxi network basically serve as resources to one another, contributing toward enhanced survival and growth through both planned and unplanned exchanges of personnel, market information, money, facilities, or political favors. Goes and Park (1997) argue that these exchanges encapsulate technical learning and competence that enable innovative capabilities to cross actively among network firms.

Guanxi has a direct impact on the market expansion and sales growth of Chinese firms by affecting resource sharing and social, economic, and political contexts in interfirm transactions (Kao, 1993). Managers devote time and effort to develop interpersonal guanxi that contribute to the sales growth of their organizations and to their personal financial gains and career promotions. Guanxi with buyers may spur customer loyalty and increase sales by minimizing transaction costs and business uncertainties. Guanxi with suppliers help the firm to acquire quality materials, and to receive good service and timely deliveries. Also, guanxi with competitors facilitates possible interfirm collaboration for resource sharing and implicit collusion, which help mitigate competitive costs and operational variability. Overall, guanxi networks with competitive forces in the task environment help Chinese firms boost sales and growth.

Given the legal uncertainties in China, there are also practical benefits to be derived from personal connections and loyalties. Most rules and regulations are still ambiguous and their enforcement is subject to the personal interpretations of government officials. Scarce resources are allocated primarily according to guanxi relations rather than bureaucratic rulings. In essence, guanxi facilitates business dealings while the formal bureaucratic rules often inhibit them (Alston, 1989). Guanxi establishes a balance in the cumbersome Chinese bureaucracy by complementing ambiguous bureaucratic rules with personal relations. Chinese firms can circumvent bureaucratic hurdles through personal networks. This makes guanxi vital for the performance and survival of Chinese firms.

Although guanxi is based on personal relations and exchanges of favors, it also entails obligations and costs, i.e., *renqing*, to the beneficiaries (Yang, 1994). Guanxi is reciprocal and utilitarian, whereby favors imply obligations or liabilities that must be repaid at some point. This is essential in the managing of guanxi because the absence of reciprocity seriously affects one's social status or face. In sum, cultivating and sustaining guanxi can be costly in terms of the reciprocal and utilitarian demands despite the contribution to sales growth. The obligation to personal attachments and ties sometimes obstructs business changes that are necessary to improve firm profit (Seabright, Levinthal, and Fichman, 1992). As a result, guanxi networks do not necessarily contribute to profit growth. This problem is aggravated during economic reform and periods of structural adjustment because guanxi cultivation requires a large amount of monetary investments. This leads to:

Hypothesis 8: Guanxi utilization is likely to have a positive effect on sales growth but no *effect on profit growth.*

METHOD

Sample

This study took place in the People's Republic of China between 1996 and 1997. China officially opened its doors to foreign investment in 1979. Two years after Mao Zedong died, the Communist Party held the historic Third Plenum of the Eleventh Party Congress in December 1978, embarking on far-reaching economic reforms, which evolved into the transition from planned to market economy. The ultimate goal of the transition is to build a market economy that can deliver long-term growth in living standards while shedding the old central planning system. Specifically, the transition encompasses three sets of reforms: the freeing of prices, trade, and entry to markets; the clarifying of property rights and privatization where necessary; and the reshaping of social services and the social safety net to ease the pain of transition while propelling the process forward (World Bank, 1996).

The data set includes companies from multiple industries located in central China, i.e., Shanghai and Jiangsu.[2] Between 1996 and 1997 we mailed a survey to high-level managers, such as general managers or deputy general managers. The initial questionnaire followed earlier studies (e.g., Tan and Litschert, 1994; Xin and Pearce, 1996) and was based on our extensive fieldwork in these areas. We also asked experts on Chinese business, two management professors in Nanjing University and one business scholar in Shanghai's Fudan University, to review our Chinese questionnaire translated from the original English version, which was then revised and subject to a back-translation procedure to ensure validity in a cross-cultural setting. Consultation was also sought on instrument development and in finalizing the draft to ensure the validity of the survey. Prior to the survey, we conducted an informal test to confirm the face and construct validity of the items on the questionnaire with 27 managers from 20 organizations in the Nanjing area. In our personal interviews, we asked them to describe their own interpretations of guanxi and the type of strategies that are built on guanxi. The results reveal a high level of correspondence between managers' perceptions and the descriptions of guanxi in the literature, mitigating our concern about common method variance. In particular, the results indicate more than 90 percent of the managers view sales force marketing and the granting of credit as business practices that are most reliant on guanxi. This result is highly consistent with the findings of Luo and Chen (1996).

We sent out the Chinese questionnaire to 400 randomly selected companies from 22,000 businesses listed in *22,000 Businesses in the P.R.C.* in various counties and cities in Shanghai and areas of Jiangsu through an independent contractor. After two rounds of reminders, we had 128 usable responses with complete information, representing a 32 percent response rate. We compared the mean values of the number of employees, net profit/employee, sales/employee, and length of operation from two samples of respondents and nonrespondents with the industry means as reported in the *China Statistical Yearbook* to check for any systematic bias between the two groups. We identified the information for the nonrespondents from the 1996 edition of *22,000 Businesses in the P.R.C.* According to t-tests, both samples were not significantly different, at $p < 0.1$, from the population mean. The Kolmogorow–Smirnov D value was also insignificant, which indicates a similar distribution for both samples. These tests led us to conclude that there was no significant nonresponse bias in our sample. For the variables with multiple indicators (e.g., strategic orientation and guanxi), we tested internal consistency using Spearman–Brown R values. These values ranged between 0.78 and 0.94, indicating an adequate level of internal consistency.

Measures and analysis

In the questionnaire, the ownership structure was defined by three groups—state-owned, collectively owned, and privately owned—according to the official classification by the Chinese government. In operationalizing the variable, we combined the private and the collective-owned firms into a group. It has been indicated that collective-owned firms operate like private-owned firms and, as nonstated-owned firms, both types of firms are much more institutionally independent than state-

[2] Shanghai is the most cosmopolitan city in China, and Jiangsu is a province where Shanghai is located.

owned firms (Nee, 1992).[3] A dummy variable represented ownership structure, with 1 for non-state-owned firms, including both collective and private firms; otherwise, 0 for state-owned firms. We also created a dummy variable with 1 for nonopen cities and 0 for open cities. Open regions are those areas that the central government has opened to the outside world. In our sample, open cities include Nanjing, Suzhou, Wuxi, Changzhou, Nantong, Lianyuangan, and Shanghai.

Strategic orientation (i.e., the level of market effectiveness) represents the mean of a multidimensional construct that includes questions of innovativeness, adaptability, and proactiveness. Responses for these items were on a 7-point Likert scale (see Appendix). We used total assets for firm size and the number of years operating in China for age. Resource strength (i.e., technological and managerial skills) was measured by managers' perception of these skills *vis-à-vis* their major competitors in the industry. Previous studies show a strong correlation between subjective assessment *vis-à-vis* competitors and objective measures of firm resource strength (Chandler and Hanks, 1993). Studies have also shown that it is particularly desirable to apply subjective measures to study organizational capabilities.

The survey includes a one-paragraph definition of guanxi that specifies its construct to avoid confusion among respondents. Guanxi with the business community and with the government authorities constitute a multifaceted construct. The former consists of horizontal connections with buyers, suppliers, and competitors, while the latter includes vertical connections with political governments, industrial departments, and other regulatory authorities such as taxation bureaus, banks, and commercial administration bureaus. Responses were based on a 7-point Likert scale and we used the mean of these constructs for each application of networking. We defined performance according to financial measures during the most recent 3 years, i.e., net profit growth and sales growth (market expansion), both of which are widely used in studies of Chinese businesses (Tan and Litschert, 1994).

We included a composite indicator and a dummy variable to control for industry and other external effects on guanxi utilization and firm performance. Guanxi utilization may differ across industries depending on the nature of the businesses and the extent of market competition and uncertainties. Industrial organization literature indicates that firm performance depends to a large extent on industry structure, such as entry barriers, concentration, differentiation, and growth rate. In a recent study, Park *et al.* (1997) presented empirical evidence to show that industry structural variables have a substantial impact on firm performance in China. These variables affect firm behavior, market power, and resource allocation within an industry, generating different contexts for guanxi utilization and firm performance. For example, companies in fast-growing and less competitive industries may not have much need for guanxi development, as the environment is already favorable for superior performance. On the other hand, firms in a competitive industry may need to focus on guanxi development to foster their positions in the market and overcome market uncertainties. We controlled for the industry effect by utilizing a dummy variable to distinguish between manufacturing and service industries and a composite growth index for each industry at the 2-digit level as defined by the State Statistical Bureau. The dummy variable is coded 1 for manufacturing industries; 0 otherwise. The index reflects multiple aspects of the industry structure, including the number of enterprises, net output value of the industry, sales revenue, net value of fixed assets, total after-tax profits, and total operating income. We determine the compound growth rates of these variables according to the figures in the *China Statistical Yearbooks* for 1992–95, which are then used in the following formula to calculate the growth index:

$$GI_j = \Sigma\{((1 + r_{ijt_1})(1 + r_{ijt_2})\ (1 + r_{ijt_3}))^{1/3} - 1\}/6$$

where GI_j is the growth index for industry j, r_{ijt_i} is the annual growth rate of variable i for industry j at t_i where $t_1 = 1993$, $t_2 = 1994$, and $t_3 = 1995$.

We apply several regression models to test our hypotheses on guanxi utilization and its impact on firm performance. Models 1 and 2 tested

[3] Many collective-owned firms, e.g., township and village enterprises, are in fact *de facto* private enterprises. They register as collective-owned firms because of special benefits such as low taxation, easier access to bank loans, and other support from local government. Our empirical testing also reveals no substantial difference between these two groups as they are entered separately into the model. The text has been rewritten for clarification on this issue.

Hypotheses 1–7 for guanxi with the business community and with government authorities, respectively. We adopted a hierarchical procedure to test the relative impact of each construct of the variables; Models 1a, 1b, and 1c (Models 2a, 2b, and 2c) are compared with the base model, which includes only control variables for horizontal (vertical) networks with business community (government authorities). Models 3 (3a, 3b, and 3c) and 4 (4a, 4b, and 4c) test Hypothesis 8 on sales growth and profit growth, respectively; we include the antecedent variables on guanxi utilization as control variables. Along with the industry, these variables also affect firm performance (Grant, 1996). Variance inflation factors (VIF) in all regression models indicate no significant sign of a multicollinearity problem. VIF values range from 1.22 to 1.97 for Models 1 and 2 and from 1.28 to 2.10 for Models 3 and 4.

RESULTS

Table 1 presents the descriptive statistics and Pearson correlation coefficients for the study variables. The correlation matrix indicates consistently significant correlation between the antecedent variables and the guanxi network with the business community. Except for the length of operations, every independent variable is significantly correlated with guanxi with the business community. However, only institutional factors (i.e., ownership structure and location) and strategic orientation are significantly correlated with the guanxi network with government authorities. None of the organizational factors were significantly correlated with guanxi with government authorities. The two applications of networking skill appear to be closely related to one another, indicating that as companies build external networks, they do so both with forces in the task environment and with institutional authorities. Table 1 also supports Hypothesis 8, with a strong correlation between guanxi and firm performance. Guanxi appears to be more strongly related to sales growth than to improvements in net profit.

Table 2 presents regression results for Models 1 and 2 that test Hypotheses 1–7 on guanxi antecedents. Models 1a, 1b, and 1c were all significant at $p < 0.05$, supporting institutional, strategic, and organizational constructs as important antecedents for guanxi development with the business community. For guanxi with government authorities, organizational factors in general, i.e., Model 2c, were not significant at $p < 0.1$ while offering strong support for institutional factors and strategic orientation, with significant results at $p < 0.05$ for Models 2a and 2b.

Institutional factors (i.e., ownership structure and location) were consistently significant for both horizontally and vertically applied guanxi at $p < 0.1$, supporting Hypotheses 1 and 2. Ownership structure showed a stronger relationship with guanxi with the government, while location shows a stronger relationship with guanxi with the business. These results are consistent with our theoretical discussion. Nonstate-owned firms attempt to build connections with government authorities to mitigate transaction costs and uncertainties due to ambiguous property rights. Nonstate-owned firms need institutional support and protection to secure access to key inputs and buyers. State-owned firms already have strong support by the government and instead need to pay more attention to the relationship with the business community. In contrast, guanxi with the government is the hole that needs to be filled by the nonstate-owned firms. Nonstate-owned firms have been institutionally discriminated against in taxation, bank loans, and registration. Nonstate-owned firms thus are left with no choice but to develop better relationships with the government that has control over these regulatory areas.

Firms in nonopen areas commonly have a weakness (i.e., structural hole) in the relationship with suppliers, buyers, and distributors. In fact, the government offers significantly more fiscal support and subsidizes more financial resources to firms in nonopen areas than to those in open areas. Most firms (especially state-owned) in nonopen areas know that their operating losses will be filled by the central government. In contrast, firms in open areas usually have strong networks with other firms, but they have more needs for networking with the government. The local government in open regions tends to have more autonomy and decision-making power than those in nonopen regions. Closer ties with the government in open regions thus imply special favors and privileges to the firms, especially in resource sourcing and/or special rights of doing businesses in a restricted area.

Strategic orientation (i.e., the level of market effectiveness) is significant for both applications

Table 1. Descriptive statistics and Pearson correlation coefficients

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Guanxi-business community	2.62	0.64												
2.Guanxi-government authorities	2.37	0.62	0.44***											
3. Sales growth	18.0	13.8	0.27**	0.29**										
4. Profit growth	13.4	10.6	0.21*	0.20*	0.71***									
5. Ownership structure	0.61	0.40	0.20*	0.23*	0.21*	0.23*								
6. Location	0.68	0.46	0.23*	0.20*	−0.12	−0.04	−0.20*							
7. Strategy orientation	4.42	1.49	0.19*	0.20*	0.15	0.09	0.17*	−0.16						
8. Size	7.52	3.06	−0.17*	0.03	0.07	0.09	−0.33***	−0.06	0.12					
9. Technology skills	3.06	1.91	−0.18*	0.05	0.33***	0.38***	−0.14	0.11	0.11	0.14				
10. Managerial skills	2.27	1.42	−0.26**	0.11	0.26***	0.33***	0.19*	−0.18*	0.20*	0.02	0.47***			
11. Length of operation	9.09	7.31	0.03	0.02	0.04	0.04	−0.25*	−0.08	−0.18*	0.33***	0.04	0.01		
12. Industry growth	13.9	6.60	−0.24**	−0.22**	0.27**	0.30**	0.07	0.04	0.26**	0.21*	0.10	0.05	−0.13	
13. Industry type	0.75	0.43	0.06	−0.19*	−0.08	−0.25**	−0.36***	0.13	−0.10	0.25**	−0.03	−0.01	−0.21*	0.11

$n = 128$
$^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 2. Standardized regression results for guanxi utilization

Variables	Guanxi-business community				Guanxi-government authorities			
	Model 1a	Model 1b	Model 1c	Model 1	Model 2a	Model 2b	Model 2c	Model 2
Institutional factors:								
Ownership structure	0.21^{*}			$0.22^{\dagger}$	0.31^{*}			0.31^{**}
Location	0.27^{**}			0.26^{**}	$0.17^{\dagger}$			$0.18^{\dagger}$
Strategic orientation		0.21^{*}		0.23^{*}		0.20^{*}		0.29^{**}
Organizational factors:								
Size			-0.20^{*}	-0.24^{*}			–0.06	–0.05
Technology skills			-0.18^{*}	-0.18^{*}			–0.05	–0.07
Management skills			-0.23^{**}	$-0.16^{\dagger}$			–0.10	–0.07
Length of operation			–0.05	0.04			–0.03	–0.04
Control variables:								
Industry growth	–0.11	$-0.15^{\dagger}$	-0.19^{*}	$0.18^{\dagger}$	–0.08	–0.14	$-0.17^{\dagger}$	$-0.17^{\dagger}$
Industry type	0.08	0.06	0.07	0.07	-0.21^{*}	-0.22^{*}	$-0.18^{\dagger}$	-0.21^{*}
Model F	2.99^{*}	2.44^{*}	3.09^{**}	4.08^{***}	2.28^{*}	2.16^{+}	1.95	2.97^{**}
R^{2a}	0.17^{**}	0.16^{**}	0.19^{**}	0.52^{**}	0.13^{*}	0.11^{*}	0.08	0.29^{*}

$n = 128$
$^{\dagger}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$
[a] It is compared to the base model that includes only control variables.

of guanxi at $p < 0.05$, supporting Hypothesis 3. These results indicate that companies oriented toward market effectiveness are more likely to pursue guanxi networks because their focus is on market penetration and quick adaptation to changes in buyer needs or to any other competitive forces.

None of the organizational factors were significant for guanxi with government authorities, while most were significant for guanxi with the business community. These results offer only partial support to Hypotheses 4, 5, and 6, but no support for Hypothesis 7. This is consistent with studies in the strategy literature that contend that companies build networks with competitive forces in the task environment to overcome organizational disadvantages. As predicted, size and resources are negatively related to guanxi with the business community at $p < 0.01$ and $p < 0.1$ respectively. There appear to be no differences between young and old organizations in terms of their attempts to develop guanxi networks. This may indicate that companies in China need to network actively with the business community and government authorities both to overcome the liability of newness or to ensure the survival and growth of older firms. In a transition economy with increasing competition and decreasing government protection, older firms may need to invest even more in guanxi development to be able to continue to offer and exchange favors with numerous constituencies that have been developed over time. Young firms may utilize guanxi intensively, while older firms use it more extensively. The control variable (i.e., industry growth index) was significant and negatively related to both applications of guanxi at $p < 0.1$, indicating that firms pursue guanxi in a more adverse environment such as that of slow-growing industries. Industry type is insignificant in relation with guanxi with the task environment, but it is strongly associated with guanxi with the government. Specifically, service firms tend to use more guanxi with the government than manufacturing firms do, which is consistent with Yeung and Tung (1996). While manufacturing firms may need to pay more attention to develop strengths in traditional strategy areas, service businesses in general are more relationship-intensive and rely more on external resources provided by the government. Legal frameworks in the service sector in transition economies are even less developed than those in the manufacturing sector (Naughton, 1994). In China, many service industries, such as investment banking, direct marketing, and interprovincial transportation, are not yet fully open for market competition. As a result, top managers in service-oriented firms may have to devote more resources to constructing stronger and more sustainable ties with government officials in order to coopt sources of environmental uncertainty.

Overall, the results indicate different applications of guanxi across firms according to institutional, strategic, and organizational settings. These firm-specific factors also affect the application of guanxi networks that firms will pursue. The weak support for organizational factors as antecedents to guanxi utilization with government authorities, however, does not imply that managers with strong resources do not use guanxi with government authorities. Rather, it may imply that firms in China develop and maintain good connections with government authorities regardless of their resources. This is consistent with earlier findings that show that institutional uncertainties and ambiguous property rights necessitate networking with various government agencies for most firms in China (Peng and Heath, 1996).

Table 3 presents the regression results for Models 3 and 4 to test the impact of guanxi on performance while controlling for industry and other firm attributes. The results support our predictions in Hypothesis 8; both applications of guanxi networks are significant for sales growth but insignificant for profit growth. These results indicate that guanxi networks have a substantial impact on market expansion efforts, but less impact on accounting returns. Guanxi is basically a mechanism to position a firm in the market, not to improve its own internal operations. As indicated by previous studies, industry growth, ownership structure, and resource strength have significant relationships with firm performance in China. Technological skills appear to have the strongest impact among the various firm attributes on market expansion and operational improvement. The results are also consistent with earlier findings about ownership structure, with nonstate-owned firms performing significantly better than state-owned firms (Park *et al.*, 1997; Nee, 1992).

Overall, these results indicate the dynamics between firm-specific conditions, guanxi development, and performance of Chinese firms. Guanxi

Table 3. Standardized regression results for firm performance

Variables	Sales growth				Profit growth			
	Model 3a	Model 3b	Model 3c	Model 3	Model 4a	Model 4b	Model 4c	Model 4
Guanxi—business community	0.26**		0.20*	0.18†	0.11		0.10	0.08
Guanxi-government authorities		0.31***	0.24**	0.21*		0.20*	0.18†	0.15
Control variables:								
Orientation				0.19†				–0.07
Size				–0.15				0.09
Technology				0.32**				0.30**
Management				0.18†				0.21*
Length				–0.10				0.12
Location				0.06				–0.10
Ownership structure				0.27*				0.20†
Industry growth	0.17*	0.16†	0.16†	0.18†	0.15†	0.08	0.15†	0.11
Industry type	0.03	0.04	0.04	0.05	–0.19*	–0.19*	–0.20*	–0.19*
Model F	6.28**	8.08***	6.49***	5.21***	2.83†	2.92*	2.67†	4.16***
R^2	0.19	0.21	0.25	0.60	0.12	0.14	0.15	0.51

$n = 128$
†$p < 0.10$; *$p < 0.05$; **$p < 0.01$; *** $p < 0.001$

development depends on various firm attributes, including institutional, strategic, and organizational factors. Guanxi then subsequently affects firm performance along with other firm-specific attributes. These firm-level settings define the antecedents for guanxi cultivation and sustenance, which then join forces with guanxi to affect performance, primarily market expansion. Guanxi cultivation constitutes an important element for survival and for market expansion of Chinese firms, but it is not a necessary and sufficient condition for overall performance.

DISCUSSION AND CONCLUSIONS

This paper examines organizational practices in guanxi utilization and the impact of guanxi on firm performance in China. Guanxi is an important cultural and social element in Chinese society that has significant effects on business operations, survival, and growth. Despite wide utilization of guanxi, there is a noticeable difference among Chinese firms in the extent of guanxi utilization. Based on various organizational and strategy theories, we develop an integrative framework to explain the highly common, but idiosyncratic to each firm, practice of guanxi networking in Chinese organizations. The theoretical framework consists of institutional, strategic, and organizational factors, which characterize the setting for guanxi utilization. These factors determine the extent of needs and capacity for guanxi utilization. Our findings indicate that all three constructs are critical antecedents to the use of guanxi in China. An exception is the insignificant result for organizational factors in guanxi utilization with government authorities. Guanxi networking with government authorities seems to depend primarily on the institutional and strategic factors of the firm. Guanxi with competitive forces can be attributed to institutional, strategic, and organizational factors.

Our findings indicate that guanxi contributes to firm growth in terms of market expansion, but not in terms of improving net profit. This implies that guanxi is more important in establishing external relations and legitimacy and positioning competitively in the market than in improving internal operations. This may explain the high costs to cultivate and maintain guanxi, which to some extent offset the benefits from market expansion, such as through operational inefficiencies. This finding also supports the law of reciprocity in terms of guanxi. Firms connected through guanxi are obligated to return favors in order to maintain trust and not to lose face. Xin and Pearce (1996) posit that managers' perceptions about the importance of guanxi are reflected in actual investment and expenditures for gift giving and holding banquets. Luo and Chen (1996) also illustrate that guanxi between sellers and buyers leads to increased sales for the sellers, but at the expense of low prices or liberal terms of payments offered to the buyer. Overall, our findings reflect potential synergy gains in guanxi from resource complementarity and lower transaction costs. In a transition economy with ambiguous property rights and weak legal constraints on market competition, guanxi provides an opportunity to enhance market share through improved competitive positioning and other applications of collaboration with competitors and government authorities. In addition to guanxi, other organizational contexts, such as strategic orientation and internal resources and capabilities, also affect firm performance in China. Guanxi affects firm growth directly by manipulating market transactions and competitive positions and indirectly by facilitating the implementation of business strategies.

This paper presents empirical evidence of the key tenet in resource dependence theory that maintains that a firm's possession and control of important resources determine the extent of external dependence (Pfeffer and Salancik, 1978). For example, organizations with advanced skills and resources are less dependent on guanxi connections. This is also consistent with Burt's notion of structural holes. Our findings indicate that guanxi is a mechanism for Chinese firms not only to exploit and accumulate social capital but also to broker structural gaps with key stakeholders in the environment. Firms tend to establish guanxi networks to overcome strategic and institutional weaknesses by linking with those that are remotely related with the firm but have a strong control over key resources. Our findings are also in line with Seabright *et al*. (1992) regarding the negative outcome of individual attachment over time. Repeated interactions in a guanxi network lead to a socially embedded relationship that demands continual commitment from all parties. On one hand, the personal attachments that develop over time, mainly among executives, constitute social assets that enforce the continuation of the guanxi connection. Such attachments make the guanxi sustainable, transferable, and intangible and attenuate difficulties due to uncertain changes in the environment. On the other hand, however, such attachments produce inertia that operates against implementing internal changes to spur profit enhancement. Guanxi emerges over time as social and relational assets that promote sales growth, but not necessarily profit growth. Economic motivations for guanxi networking become diluted or are offset as the connected parties observe the norm of reciprocity and attempt to sustain the network at any cost.

This paper confirms and extends conceptual projects on guanxi in earlier studies (e.g., Xin and Pearce, 1996). First, this paper provides empirical evidence to the claim that guanxi utilization is heterogeneous across firms and depends on the institutional, strategic, and organizational settings of each firm. Second, it tests the effect of guanxi on performance, complementing findings of Yeung and Tung (1996) that guanxi leads to higher firm performance, with a stronger impact on market expansion and sales growth than on financial returns. Lastly, this paper validates the multiple dimensions of guanxi as pertinent and promising. Guanxi in China represents two distinctive applications of a single networking skill: one horizontally applied with competitive forces and the other vertically applied with government authorities. Our study incorporates both networking skills in the development of theory and empirical tests. The findings indicate that the pursuit of either or both applications of guanxi depends on the institutional, strategic, and organizational settings. Guanxi with competitive forces and with government authorities bring different benefits and make different demands on member companies. Future studies need to recognize these multiple applications of guanxi and to delineate the differences in order to avoid spurious findings and conclusions.

Guanxi has been developed over many centuries in China. It reflects highly complex social phenomena that are embedded in every aspect of personal and organizational interactions. Our study illuminates the rich dynamics in such organizational networking in China. It presents a snapshot of guanxi dynamics at a critical point of China's economic reform. There is a need for more studies with new theoretical insights to enrich our understanding of the complexity in guanxi connections. In particular, anthropological observations over a long time period are needed to explore the evolutionary process of guanxi networks. Such studies will help us understand how a person or an organization initiates, cultivates, maintains, and dissolves guanxi over time. The nature and importance of guanxi may also vary depending on the evolutionary stage of development. It would also be worthwhile to explore interrelationships among the antecedents of guanxi utilization. In particular, given the strong institutional effect on firm operations in China's transition economy, it is possible that a firm's strategic and organizational settings are constrained by the specific institutional setting it faces. This requires further theoretical and empirical exploration in future studies. Readers should also be cautioned about the potential bias in measuring competitiveness and other industry related measures. In China, managers are often ill-informed about competitors outside their locality, which is more so in small firms than in large firms. They also tend to adopt a narrow definition of industries and competitors.

Guanxi is by no means culturally unique to China. It exists to some extent in every human society, at least in terms of the norms of reciprocity. What varies from culture to culture is the types of particularistic ties and the intensity of their application (Tsui and Farh, 1997). Given the universality of the influence of guanxi, it would be important to conduct comparative studies to properly assess the importance of guanxi in China. Future studies need to adopt cross-cultural research to be able to fully grasp the role of guanxi in Chinese society. This study, however, focuses on the antecedents of guanxi that may differ across cultures and firms. Our findings thus should be limited to the specific social and institutional context in China, especially during the period of economic reform. This study is also limited in its focus on guanxi utilization at the firm level. Guanxi is equally active and important at the individual level, which may also have a significant impact on firm performance. It is possible that the utilization of intrafirm guanxi depends on different types of antecedents from those found in this study. This requires a careful attention in future research to compare and differentiate bases and roles of guanxi at the individual and firm levels. It is also important that future studies further delineate the nature of guanxi; for example, pecuniary guanxi (e.g., holding banquets or gift giving) as opposed to nonpecuniary guanxi may have different implications for organizational dynamics and performance.

ACKNOWLEDGEMENTS

We are grateful to Dan Schendel, Terri A. Scandura, and two anonymous reviewers for their helpful comments on earlier versions of this paper.

REFERENCES

Aldrich HE. 1979. *Organizations and Environments*. Prentice-Hall: Englewood Cliffs, NJ.

Aldrich HE, Fiol CM. 1994. Fools rush in? The institutional context of industry creation. *Academy of Management Review* **19**: 645–670.

Alston JP. 1989. Wa, guanxi, and inhwa: managerial principles in Japan, China, and Korea. *Business Horizons* March–April: 26–31.

Amit R, Schoemaker PJH. 1993. Strategic assets and organizational rent. *Strategic Management Journal* **14**(1): 33–46.

Baker DD, Cullen JB. 1994. Administrative reorganization and configurational context: the contingent effects of age, size, and change in size. *Academy of Management Journal* **36**: 1251–1277.

Barney JB. 1991. Firm resources and sustained competitive advantage. *Journal of Management* **17**: 99–120.

Barney JB. 1996. *Gaining and Sustaining Competitive Advantage*. Addison-Wesley: Reading, MA.

Boisot MH, Child J. 1988. The iron law of fiefs: bureaucratic failure and the problem of governance in the Chinese economic reforms. *Administrative Science Quarterly* **33**: 507–527.

Boisot M, Child J. 1996. From fiefs to clans and network capitalism: explaining China's emerging economic order. *Administrative Science Quarterly* **41**: 600–628.

Burt RL. 1992. *Structural Holes*. Harvard University Press: Cambridge, MA.

Chandler GN, Hanks SH. 1993. Measuring the performance of emerging business: a validation study. *Journal of Business Venturing* **8**: 391–408.

Child J. 1994. *Management in China during the Age of Reform*. Cambridge University Press: Cambridge, U.K.

Coleman J. 1990. Social capital in the creation of human capital. *American Journal of Sociology* **94**: 95–120.

Cummings TG. 1984. Transorganizational development. In *Research in Organizational Behavior*, Vol. 6, Staw B, Cummings L (eds). JAI Press: Greenwich, CT; 367–422.

Davies H, Leung TK, Luk S, Wong Y. 1995. The benefits of guanxi: the value of relationships in developing the Chinese market. *Industrial Marketing Management* **24**: 207–214.

DiMaggio P, Powell W. 1983. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review* **48**: 147–160.

Farh JL, Tsui A, Xin K, Cheng BS. 1998. The influence of relational demography and guanxi: the Chinese case. *Organization Science* **9**: 471–489.

Freeman J, Carroll GR, Hannan MT. 1983. The liabilities of newness: age dependence in organizational death rates. *American Sociological Review* **48**: 692–710.

Galaskiewicz J. 1985. Interorganizational relations. *Annual Review of Sociology* **11**: 281–304.

Galaskiewicz J, Wasserman S. 1989. Mimetic processes within an interorganizational field: an empirical test. *Administrative Science Quarterly* **34**: 454–479.

Goes J, Park SH. 1997. Interorganizational links and innovation: the case of hospital services. *Academy of Management Journal* **40**: 673–696.

Grant RM. 1996. Toward a knowledge-based theory of the firm. *Strategic Management Journal*, Winter Special Issue **17**: 109–122.

Hall M, Weiss L. 1967. Firm size and profitability. *Review of Economics and Statistics* **49**: 319–331.

Hwang ER. 1987. Face and favor: the Chinese power game. *American Journal of Sociology* **92**: 35–41.

Kao J. 1993. The worldwide web of Chinese business. *Harvard Business Review* **71**(2): 24–36.

Luo Y, Chen M. 1996. Managerial implications of guanxi-based business strategies. *Journal of International Management* **2**: 193–316.

Miles RE, Snow CC. 1978. *Organizational Strategy, Structure and Process*. McGraw-Hill: New York.

Miles RE, Snow C. 1984. Fit, failure and the hall of fame. *California Management Review* **26**: 10–27.

Miller D, Friesen PH. 1983. Strategy-making and environment: the third link. *Strategic Management Journal* **4**(3): 221–235.

Miner AS, Amburgey TL, Stearns TM. 1990. Interorganizational linkages and population dynamics: buffering and transformational shields. *Administrative Science Quarterly* **35**: 689–713.

Nadler DA, Tushman ML. 1988. *Strategic Organizational Design*. HarperCollins: New York.

Naughton B. 1994. China's reform: Chinese institutional innovation and privatization from below. *AEA Papers and Proceedings* **84**: 266–270.

Nee V. 1992. Organizational dynamics of market transition: hybrid forms, property rights, and mixed economy in China. *Administrative Science Quarterly* **37**: 1–27.

Nohria N, Eccles RG. 1992. *Networks and Organizations*. Harvard Business Press: Cambridge, MA.

North DC. 1990. *Institutions, Institutional Change and Economic Performance*. Harvard University Press: Cambridge, MA.

Oliver C. 1990. Determinants of interorganizational relationships: integration and future directions. *Academy of Management Review* **15**(2): 241–265.

Oliver C. 1991. Strategic responses to institutional processes. *Academy of Management Review* **16**: 145–179.

Ouchi WG. 1980. Markets, bureaucracies and clans. *Administrative Science Quarterly* **25**: 129–141.

Park SH, Li S, Tse D. 1997. Determinants of firm performance in China: institutional vs. economic factors. Paper presented at the 1997 AIB Annual Meetings, Mexico.

Peng M, Heath PS. 1996. The growth of the firm in planned economies in transition: institutions, organizations, and strategic choice. *Academy of Management Review* **21**: 492–528.

Pennings JM, Harianto F. 1992. The diffusion of technological innovation in the commercial banking industry. *Strategic Management Journal* **13**(1): 29–46.

Perkins DH. 1994. Completing China's move to the market. *Journal of Economic Perspective* **8**: 23–46.

Pfeffer J, Salancik GR. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. Harper & Row: New York.

Porter ME. 1985. *Competitive Advantage*. Free Press: New York.

Powell WW. 1990. Neither market nor hierarchy: network forms of organization. In *Research in Organizational Behavior*, Vol. 12, Staw BM, Cummings LL (eds). JAI Press: Greenwich, CT; 295–336.

Prahalad CK, Hamel G. 1990. The core competence of the corporation. *Harvard Business Review* **68**(2): 79–91.

Punnett BJ, Yu P. 1990. Attitudes toward doing business with the PRC. *International Studies of Management and Organization* **20**: 149–160.

Pye LW. 1995. Factions and the politics of guanxi: paradoxes in Chinese administrative and political behavior. *China Journal* **34**: 35–53.

Rajagopalan N. 1997. Strategic orientations, incentive plan adoptions and firm performance: evidence from electric utility firms. *Strategic Management Journal* **18**(10): 761–786.

Rawski TG. 1994. Chinese industrial reform: accomplishments, prospects, and implications. *American Economic Review* **84**: 271–275.

Redding SG, Ng M. 1982. The role of face in the organizational perceptions of Chinese managers. *Organizational Studies* **3**: 204–209.

Rogers EM. 1983. *Diffusion of Innovations*. Free Press: New York.

Seabright MA, Levinthal DA, Fichman M. 1992. Role of individual attachments in the dissolution of interorganizational relationships. *Academy of Management Journal* **35**: 122–160.

Shan W, Hamilton W. 1991. Country-specific advantage and international cooperation. *Strategic Management Journal* **12**(6): 419–432.

Shenkar O. 1996. The firm as a total institution: reflections on the Chinese state enterprise. *Organization Studies* **17**: 885–907.

Shenkar O, Von Glinow MA. 1994. Paradoxes of organization theory and research: using the case of China to illustrate national contingency. *Management Science* **30**: 56–71.

Singh JV, Tucker DJ, House RJ. 1986. Organizational legitimacy and the liability of newness. *Administrative Science Quarterly* **31**: 171–193.

Tan JJ, Litschert RJ. 1994. Environment–strategy relationship and its performance implications: an empirical study of Chinese electronics industry. *Strategic Management Journal* **15**(1): 1–20.

Teece DJ. 1986. Profiting from technological innovation: implications for integration, collaboration, licensing and public policy. *Research Policy* **15**: 785–805.

Thomas JB, Trevino LK. 1993. Information processing in strategic alliance building: a multiple-case approach. *Journal of Management Studies* **30**: 779–814.

Thorelli HB. 1986. Networks: between markets and hierarchies. *Strategic Management Journal* **7**(1): 37–51.

Tsang WK. 1998. Can guanxi be a source of sustained competitive advantage for doing business in China? *Academy of Management Executive* **12**: 64–73.

Tsui AS, Farh JL. 1997. Where guanxi matters: relational demography and guanxi in the Chinese context. *Work and Occupations* **24**: 56–79.

Tung RL. 1979. Dimensions of organizational environments: an exploratory study of their impact on organizational structure. *Academy of Management Journal* **22**: 672–693.

Van de Ven AH, Walker G. 1984. The dynamics of interorganizational coordination. *Administrative Science Quarterly* **29**: 598–621.

Venkatraman N, Prescott JE. 1990. Environment–strategy coalignment: an empirical test of its performance implications. *Strategic Management Journal* **11**(1): 1–23.

Wank DL. 1996. The institutional process of market clientelism: guanxi and private business in a south China city. *The China Quarterly* **3**: 820–838.

World Bank. 1996. *World Development Report: From Plan to Market*. World Bank: Washington, DC.

Xin KR, Pearce JL. 1996. Guanxi: connections as substitutes for formal institutional support. *Academy of Management Journal* **39**: 1641–1658.

Yang MM. 1994. *Gifts, Favors and Banquets: The Art of Social Relationships in China*. Cornell University Press: New York.

Yeung IY, Tung RL. 1996. Achieving business success in Confucian societies: the importance of guanxi. *Organizational Dynamics* **3**: 54–65.

APPENDIX: SUMMARY OF THE SURVEY QUESTIONNAIRE

1 General Information
   Organizational Form:
   a state-owned———————;
   b collectively-owned———————;
   c privately-owned———————.
   Firm Size: Total assets in RMB———————;
   Major product———————;
   Year of firm formation———————;
   Location: Name of City or County—————;

2 Strategic Orientation (7-point scale, from strongly disagree to strongly agree):
   a In making strategic decisions, we constantly seek to introduce new brands or new products in the market;
   b In making strategic decisions, we quickly respond to signals of market opportunities;
   c We search for big market opportunities and favor large, bold decisions despite the uncertainty of their outcome.

3 Technological and Managerial Strengths (5-point scale, from lowest 20% to top 20% in the industry):
   To the best of your knowledge, how does your firm compare to close (direct) competitors in your industry with respect to technological skills and abilities?
   To the best of your knowledge, how does your firm compare to close (direct) competitors in your industry with respect to managerial and organizational skills?

4 Guanxi with the Business Community (7-point scale, from very little to very much):
   a Please circle the number best describing the extent to which your firm has utilized guanxi connections with buyers;
   b Please circle the number best describing the extent to which your firm has utilized guanxi connections with suppliers;
   c Please circle the number best describing the extent to which your firm has utilized guanxi connections with competitors.

5 Guanxi with Government Authorities (7-point scale, from very little to very much):
   a Please circle the number best describing the extent to which you and your firm have utilized guanxi connections with various levels of political governments;
   b Please circle the number best describing the extent to which you and your firm have utilized guanxi connections with industrial authorities;
   c Please circle the number best describing the extent to which you and your firm have utilized guanxi connections with other government authorities, such as taxation bureaus, banks, industrial and commercial administrative bureaus, and the like.

6 Organizational Performance
   Sales growth rate: <5%———— 5–10%———— 10–15%———— 15–20% —— 20–30%———— 30–50%———— >50%————
   Net profit growth rate: <5%———— 5–10%———— 10–15%———— 15–20%—— 20–30%———— 30–50%———— >50%————

Note: The respondents were asked to answer questions 2–6 in terms of the last 3 years.