ABSTRACT

Managerial ties (MT) are important for business performance by providing firms access to valuable resources and protecting them from opportunist. Drawing on the resource-based view and the market orientation (MO) literature, we argue that (1) MT can help exporting firms to enhance export performance; and (2) MO will help strengthen the positive effect of MT as MO directs the value of MT for improvement of competitive strategy and customer experience with a market focus on generation, dissemination and use of market intelligence concerning existing and potential customers and competitors. Using a sample of 230 Chinese exporting firms, we found that MT is linked to superior export performance, and the link is positively moderated by MO. Therefore, this study expands our understanding of how firms can not only improve their export performance through the development of MT, but also use MO to reinforce MT and export performance association.

**Key words:** China, export performance, managerial ties, market orientation, resource-based view

**Running title:** Managerial Ties, Market Orientation, and Export Performance

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INTRODUCTION

A significant number of studies examine social networks’ influence on performance (e.g., Boso, Story, Cadogan, Micevski, & Kadić-Maglajlić, 2013; Morgan & Hunt, 1994; Peng & Luo, 2000). In particular, the association of organizations’ managerial ties (hereafter MT, connections with executives at other businesses, and officials of government agencies) and business performance has drawn many scholars’ attention (Acquaah, 2007; Guo, Xu & Jacobs, 2014; Ismail, Ford, Wu & Peng, 2013; Li & Zhang, 2007; Li & Zhou, 2010; Li, Zhou, & Shao, 2009; Luo, Hsu, & Liu, 2008; Park & Luo, 2001; Peng & Luo, 2000; Xin & Pearce, 1996; Zhang, Hu & Gu, 2008). However, the effect of MT is seen to be missing from the export performance literature (Sousa, Martínez-López, & Coelho, 2008; Zou & Stan, 1998), despite the fact that exports accounted for 30% of global GDP in 2012 (WB, 2014). Additionally, while many note the positive effect of MT, scholars also suggest that, contingent on conditions, the effect of these ties may not be readily straightforward (e.g., Li & Zhang, 2007; Luo, Griffith, Liu, & Shi, 2004; Park & Luo, 2001; Peng & Luo, 2000).

The global scale of competition has led firms into seeking international opportunities, and exporting represents the most popular mode of foreign market engagement. Exporting is not a simple extension of the domestic market. It can be very different from domestic operations due to the variety, diversity and difference of foreign environments (Leonidou, Katsikeas, & Samiee, 2002; Sousa et al., 2008); hence, the liabilities of foreignness incurred on a firm’s international journey (Zaheer, 1995). An exporting firm is exposed to a distant landscape in terms of customers,
competition, cultures, values, norms, regulations, etc. Therefore, exporting organizations require resource bases to equip them with the necessary assets and competencies to explore opportunities in foreign markets when dealing with various challenges. Can MT still be a valuable asset for exporting firms?

Connection with external entities is a key feature of business practices both in developed economies (Stam & Elfring, 2008), and emerging markets such as China, Russia, Brazil and India (Batjargal, 2007; Elango & Pattnaik, 2007; Kim, Oh, & Swaminathan, 2006) as one of the key resources that international firms can exploit in international operations (Johanson & Vahlne, 2009; Lee & Griffith, 2004). MT are an important type of social networks, having been frequently discussed in the literature as an antecedent to firms’ performance (Luo, Sivakumar, & Liu, 2005; Peng & Luo, 2000; Stam & Elfring, 2008). However, their significance has not yet been fully understood when considering exporting organizations that experience very different environments throughout home and host countries when engaging in international competition (Boso et al., 2013), especially for those in China, which is the top exporter globally (Sousa et al., 2008; Zou & Stan, 1998). MT typically fit in a local fabric without international connections (Ellis & Pecotich, 2001). A question that emerges is, therefore, whether top managers’ local ties and connections with their business friends and local institutional officials can help their exporting firms acquire access to valuable resources to extend their exporting operations and success. Thus the first aim of this research is to bridge the link between MT and export performance.

Recent MT research identifies the downside of MT (Sheng, Zhou, & Li, 2011;
Zhang, Tan, & Wong, 2014). In emerging markets, firms actively engage in networking to compensate for the uncertainty created from institutional voids (Ismail et al., 2013). However developing and maintaining business and political connections can be costly; political ties will also sometimes divert firm resources from business purposes (Zhang et al., 2014). A second important question emerges which is how to guarantee the value of MT for exporting success. We argue that it is critically important for Chinese firms to use market orientation (MO) to direct organizational efforts to address customer wants and needs. MT only serve as a means, while long-term profitability through customer-linking and competitor-oriented strategies (MO) is the end (Narver & Slater, 1990). This notion highlights the importance of our research which proposes that MO helps exporting firms garner greater value from their MT.

The MO literature suggests that MO is an important resource that can lead to business success because it stresses collecting, communicating and acting upon marketplace intelligence about competitors and customers in order to better satisfy customers’ preferences and obtain their loyalty (Jaworski & Kohli, 1993; Kirca, Jayachandran, & Bearden, 2005; Morgan & Strong, 2003; Narver & Slater, 1990; Slater & Narver, 2000; Subramanian & Gopalakrishna, 2001; Tse, Sin, Yau, Lee, & Chow, 2003; Zhou, Gao, Yang, & Zhou, 2005). Export MO helps exporting firms to enhance export performance (Cadogan, Diamantopoulos, & Siguaw, 2002). With pressures from globalization and reforming with the goal of improving competitiveness, a large number of Chinese firms have adopted a MO approach (Wei
& Lau, 2008).

Like many emerging markets, China has been undergoing fundamental and comprehensive institutional transition, where both relationship-based structure and rule-based market structure are intertwined (Peng, 2003). This scenario provides an interesting opportunity to study how organizations use the two different bundles of resources/capabilities for business success. Researchers have begun to investigate the relationships of social network resources and MO. Some argue that the effect of MO on performance can be dependent on the firm’s network resources (Chung, 2011). Ellis (2010) suggests that customer network size and diversity are positively related to MO. The intelligence generation and dissemination components of export MO drive responsiveness to intelligence depending on MT (Chung, 2012). Some suggest that MT improve a firm’s information acquisition capabilities for better international performance (Lu, Zhou, Bruton, & Li, 2010).

Insightful as these studies are, the mechanism of how MT and MO interplay to influence export performance is not yet fully clear; an important question remaining unanswered is how a firm’s MO helps it to create more value from its MT resources. Following Peng and Luo’s (2000) seminal work and also recent research (e.g., Li & Zhang, 2007), we use the resource-based view (RBV) as an overarching theory to theoretically and empirically investigate the MT-export performance link and the impact of MO in terms of providing a market focus and capabilities of information dissemination and responsiveness on the MT-export performance relation. Specifically, we suggest that exporting firms with stronger MT that are market-oriented will
outperform firms that are less market-oriented.

This research makes two important contributions to the literature. First, we add to the exporting firm literature by investigating how MT help these firms boost export performance, which is missing from our knowledge (Sousa et al., 2008; Zou & Stan, 1998). Though MT research has shown its effect on firm performance, an interesting question is whether antecedents to general performance are still applicable in an exporting setting, because in many aspects export markets are not a simple extension of domestic markets. Firms face multiple, diverse, in some cases even hostile, and very different environments in international markets (Leonidou et al., 2002; Sousa et al., 2008), which the domestic market does not experience. MT are largely embedded in the social context of local entities (Ellis & Pecotich, 2001). It is unclear whether MT can extend to help exporting firms develop advantages in internationalization and improve export performance. This situation suggests that we need to examine the performance implication of performance drivers, i.e., MT, under different contexts. Therefore, an investigation of how MT influence export performance is not only timely, but also meaningful by explaining whether and how exporting firms can use their MT resources to overcome hurdles in undertaking business in foreign markets, which is very different from domestic sales, and then boost their performance. We suggest that MT develop exporting firms’ network-based advantage by providing access to valuable resources, information and knowledge, and obtaining institutional support to exporting operations (Acquaah, 2007; Park & Luo, 2001). Thus our study extends the exporting literature by considering the role of MT in achieving superior
export performance.

Second, this study adds to the MO and MT literature by providing an angle to explain how firms can use MO to direct their MT for better export performance. Although these factors are inherently intertwined, many previous studies of international firms focus on these factors separately. Although the direct link of MO and export performance is well documented (Cadogan et al., 2002), the mechanism of how MO - valuable capabilities for rule-based market structure - can help firms to benefit from their MT resources that are important in a relationship-based structure is unclear (Peng, 2003). Drawing on the RBV (Barney, 1991; Barney, Wright, & Ketchen, 2001) and the MO literature (Cadogan et al., 2002; Kohli & Jaworski, 1990; Narver & Slater, 1990), we argue that MO is particularly valuable for exporters with rich MT because they help these firms strengthen MT-based advantage and garner the value of this advantage to outperform those competitors without this complementarity. We bring these two lines of thinking together in theorizing and testing the moderating effect of MO on the MT/export performance relation in an international context.

We use a sample of Chinese manufacturers entering international markets to empirically test the hypotheses. China is the largest exporting nation; Chinese firms appear to rely on MO and MT as a means to compete (Li et al., 2009; Wei & Lau, 2008; Zhou, Li, Zhou, & Su, 2008a), providing an ideal laboratory for this research.

THEORETICAL BACKGROUND AND HYPOTHESES

The RBV locates the sources of an organization’s competencies in the valuable, rare,
imperfect imitable, and imperfect substitutable resources and capabilities of the firm (Barney, 1991; Lavie, 2006). Capabilities bring the assets together and position them advantageously (Zhou et al., 2008a). The RBV suggests that the resources of a firm influence their performance (Hult, Ketchen, & Slater, 2005).

Social networks are important resources for the internationalization process of firms (Johnson, Yin, & Tsai, 2009; Lavie, 2006), and can influence their international performance. There are two types of networks, namely organizational networks and social networks. Organizational networks are links of organizations including a variety of forms of cooperation, including joint ventures, strategic alliances, collaborations, and consortia (Provan, Fish, & Sydow, 2007). The social network perspective cares about how social actors are connected by social relationships (Moliterno & Mahony, 2011) at multiple levels such as individual, group and organization. Social networks between individuals (e.g., employees) and groups (e.g., teams, divisions, departments, etc.) are internal to the firm. Managerial ties, in the form of connections between top managers of businesses and institutional organizations, are one type of social networks that cross organizational boundaries (Peng & Luo, 2000). Ties have a long history as a heavily influential institution in China where businesses use MT as a pervasive means to do business (Li, Poppo, & Zhou, 2008). Research has shown that using MT in businesses is prevalent in China as well as other emerging economies to compensate for the under-developed formal institutions (Li et al., 2009). So we follow this perspective to focus on a firm’s MT that include ‘executives’ boundary-spanning activities and their associated
interactions with external entities’ including executives of other businesses and
government officials, namely business ties and institutional ties (Peng & Luo, 2000: 486). Organizations usually contain merely part of their value chain and depend
crucially on their environment (Lee, Lee, & Pennings, 2001). Their external contacts are important sources for complementary assets and market opportunities as business transactions are embedded in inter-organizational social networks (Burt, 1997). Business ties provide access to quality materials and services by the suppliers, cooperation by customers and interfirm collaboration with competitor firms, while institutional ties help to reduce uncertainties by obtaining institutional support (Peng & Luo, 2000).

Not all firms have a priori highly-internationalized MT, as a network is ‘typically embedded in the local social fabric that lacks international connections’ (Zhou, Wu, & Luo, 2007b: 14). Domestic based ties can effectively facilitate the firm’s internationalization and are a crucial aspect of this process (Ellis, 2011; Johnson et al., 2009; Zhou et al., 2007b). Welch and Luostarinen (1993: 50) suggest that relationships ‘in the domestic market may be driving forces to enter foreign markets’. For example, even smaller entrepreneurial firms, typically embedded in the local social fabric can benefit from local MT that improve their capabilities and give an advantage during their internationalization (Ellis, 2011). Internationalizing firms need to learn from domestic MT partners to develop market knowledge (Elango & Pattnaik, 2007; Yiu, Lau, & Bruton, 2007), to identify international market opportunities and to extend connections with foreign intermediaries (Ellis, 2000) through network
partners’ advice and experiential learning. Moreover, trust-based personal connections and referrals also help these firms to respond quickly to the demand of global supply chain networks (Zhou et al., 2007b). Furthermore, local MT help exporting firms to explore distant market opportunities while reducing risks (He, Brouthers, & Filatotchev, 2013), and facilitate the influence of innovation on performance (Boso et al., 2013). Finally, from the institutional perspective, in emerging markets MT substitute for the under-developed formal institutional framework and external markets in order to create the competitive advantages required for international expansion (Peng & Luo, 2000; Yiu et al., 2007).

MT are a lubricant to reduce transaction costs (Boso et al., 2013; Peng & Luo, 2000). The transaction cost advantage of MT comes from the way they dispose of governance problems related to opportunism, asset specificity and uncertainty (Zhou, Poppo, & Yang, 2008b). For example, the mechanism of trust and assurance in MT protects the network actors from a high level of opportunism and behavioural uncertainty (Zhang et al., 2008). Organizations can also use their ties to manage external uncertainty (Dyer & Singh, 1998; Park & Luo, 2001) because people tend to use social relations to deal with uncertainty and complexity in economic transactions (Luo et al., 2005; Uzzi, 1999). As a result, social networks such as MT ‘reduce search costs, transaction costs, contracting costs, ambiguities, moral hazards, and opportunism’ in an internationalizing context (Elango & Pattnaik, 2007: 546). Therefore, MT are of strategic value, and their performance results in successful outcomes via overcoming resource deficiency, building up credibility and legitimacy.
and providing an efficient and effective way of undertaking foreign business.

MO – the organization-wide generation, dissemination, and responsiveness of market intelligence regarding customers and competitors - is another important resource (Kohli & Jaworski, 1990). From the RBV, MO represents important and unique strategic marketing capabilities that can transfer firm assets into superior performance (Hunt & Morgan, 1995) because MO helps a company to better understand its customers wants and needs and thus to achieve customer satisfaction and loyalty (Narver & Slater, 1990). It also enables the firm to compete proactively based on information and knowledge obtained concerning rivals (Morgan, Vorhies, & Mason, 2009). MO is one of the internal resources and capabilities which can generate sustainable competitive advantage due to the fact that MO is valuable, rare, imperfectly imitable, and unsubstitutable (Barney, 1991; Zhou et al., 2008a).

We extend the literature by applying a resource-based perspective and investigating how MT lead to export performance, and how MO positively moderates MT’s influence on export performance, two important but unaddressed questions in the literature. Below we first analyse the effect of MT on export performance, and then elaborate on the moderating effect of MO on MT-export performance link.

(Insert Figure 1 here)

**Managerial Ties and Export Performance**

Managerial ties consist of business ties and institutional ties (Peng & Luo, 2000). Generally, MT carry three information-related benefits: knowledge of market
opportunities, advice and experiential learning, and referral trust and solidarity (c.f., Acquaah, 2007; Zhou et al., 2007b). Well-established social relationships such as MT can create competitive advantages for the firm (Tsang, 1998), and bring high-level performance (Luo et al., 2005). International market information and knowledge are primarily obtained through networks rather than systematic market research (Ellis, 2000). International opportunities identified via social networks lead to more important and larger transactions (Ellis, 2011). Additionally, referral trust and solidarity created from MT networking activities can guarantee the accuracy of information (Acquaah, 2007; Zhou et al., 2007b). Prior studies have documented the positive effects of social networks such as MT on business operations and performance via initiating business ties (Elango & Pattnaik, 2007; Ellis, 2000; Uzzi, 1999), obtaining access to needed resources (Peng & Luo, 2000), and achieving effectiveness of a marketing organization (Achrol, 1991).

Despite these benefits, developing and maintaining ties are not free; for example, it involves time investment (Zhang et al., 2014). The downside of institutional ties is more salient in China as they cause problems concerning an inability to guarantee long-term orientation. In China’s bureaucratic political structure, the primary interest of officials is normally political career development, divergent from that of businesses, because they are appointed by the state and, therefore, solely responsible to their superiors. Moreover, the bureaucratic volatility can lead to more opportunistic behaviours where government officials conduct rent-seeking activities at the cost of companies (Sheng et al., 2011). Recognizing the value of MT, Sheng et al. (2011: 3)
conclude that ‘although both business and political ties provide valuable resources, the short-term nature of political ties may make them less beneficial’.

In China’s exporting context, the benefits of MT can be more important. Institutional theory suggests that institutional framework shapes firm behaviours and performance (Peng et al., 2008). China’s transitional economy is characterised by vague regulations, weak legal enforcement and arbitrary interpretation by government officials, which cause high levels of uncertainty (Zhang et al. 2014). As a result, many Chinese firms choose to develop ties with officials in institutional entities such as government and other supporting organizations to deal with the uncertainty, and gain access to valuable resources including policy, information, and scarce resources such as land, financial loans, subsidy and tax breaks, and legitimacy (Peng & Luo, 2000; Sheng et al., 2011). As Luo (2000: 89) articulates, ‘(w)hile managerial ties are costly to maintain, the cost of not having these ties in the right place with the right players may be even more prohibitive’.

Compared with domestic markets, export markets are far more culturally, geographically and politically distant and diverse (Kwon & Hu, 2000), and are characterized with additional barriers such as a complex environment, increasing demand for information and problems with the availability, accessibility and quality of export intelligence (Cadogan & Diamantopoulos, 1995). The environmental complexity of foreign markets leads to an increase in information requirements for exporting firms, which makes the firm’s information creation capabilities a valuable factor (Cadogan & Diamantopoulos, 1995).
In the exporting context, MT are vital resources for firms aiming to compete in an international arena. Previous studies suggest that an exporting firm’s ties can help to amass knowledge of foreign markets (Lages, Silva, & Styles, 2009), identify international market opportunities (Zhou et al., 2007b), facilitate its entry into international markets (Ellis, 2000; Ellis & Pecotich, 2001), mediate the relationship between international presence and performance (Zhou et al., 2007b), decrease information, knowledge barriers and transaction costs, and improve global business operations (Contractor, Wasserman & Faust, 2006). Therefore, these effects of MT (business ties and institutional ties) can contribute to competitive advantage and lead to better export performance.

Business ties present a very important resource for the success exporting firms in foreign markets. When managers develop relationships with counterparts of other firms, they are able to obtain resources, useful information and knowledge about international markets to be used to reduce uncertainties and the liability of foreignness, and improve export performance. For instance, ties between managers and their suppliers secure stable and quality materials in a timely and reliable manner, and facilitate the generation, sharing and use of knowledge (Acquaah, 2007). Ties with domestic customers may create brand loyalties and increase sales (Park & Luo, 2001), which form a valuable base for export success (Sousa et al., 2008). Moreover, ties with competitors may create the sharing of information on operations cost reduction, and collaboration in resources sharing to tackle uncertainties in exporting (Park & Luo, 2001). As a result, business ties with managers of other firms enable the
exporting firm to gain access to information, resources, and knowledge that are used to improve export performance.

Managers’ institutional ties with government officials form another important organizational resource in China’s transition economy (Li & Zhang, 2007). Chinese firms tend to maintain a close link with government officials as the latter hold control of allocation of many important resources and power to approve favourable treatment (Peng, 2003). Prior empirical studies have revealed the link between political ties and performance (Park & Luo, 2001; Peng & Luo, 2000; Sheng et al., 2011). Exporting, as examined in this study, is taken as strategically important in China, receiving significant support from the central and regional governments through institutional devices and regulatory regimes in funding, export tax rebates, foreign exchange assistance, promotion, information provision and technology upgrading (Buckley, Clegg, Cross, Liu, Voss, & Zheng, 2007; Li & Zhang, 2007). Therefore, exporting firms can use their ties with government officials for financing and intelligence, which are helpful for export performance enhancement.

Thus, we have:

*Hypothesis 1a: The more business managerial ties the exporting firm possesses, the better export performance it will have.*

*Hypothesis 1b: The more political managerial ties the exporting firm possesses, the better export performance it will have.*

**Moderating Effect of MO on MT-Export Performance Link**
During China’s transition to a more market-driven economy, MT represent ‘a necessary, but not sufficient, condition for business success… After all, a firm has to add value in the marketplace’ (Peng & Luo, 2000: 490). We propose that an exporting firm will see the strengthened effect of MT on export performance if it has MO-based competency to direct its networking activities with key personnel in related businesses and institutional organizations. In other words, MO will positively moderate the relationship of MT and export performance.

MO is important organizational capabilities that provide a firm with market sensing and customer linking so that the firm can act to add value to customers (Kirca et al., 2005). A market-oriented firm is able to generate, disseminate and use market intelligence organization-wide concerning its customers’ current and future needs and competitors’ movements. According to Narver and Slater (1990: 21), a market-oriented seller is able to understand the marketplace and establish sustainable competitive advantage through numerous ways of creating additional value for buyers, as well as numerous means of reducing customers’ whole acquisition and application costs. Likewise, Jaworski and Kohli (1993) suggest that a market-oriented firm can better satisfy customers through tracking and responding to customer needs and preferences and, hence, performs better. As such, the firm can produce and deliver better customer value via the unified efforts of individuals and departments within the firm (Kohli & Jaworski, 1990; Peng & Zhou, 2005). In the exporting domain, market-oriented exporting firms are capable of accumulating and using market intelligence to offer superior value for export customers (Cadogan et al., 2002).
MO can help exporting firms to benefit even more from MT. Companies should mobilize complementary capabilities such as MO to optimize MT resources by identifying and satisfying export customers’ wants and preferences (Cadogan et al., 2002). Although MT enable the firm to acquire information (Park & Luo, 2001), MO can direct such efforts to meet export market preferences more accurately and purposefully. MO helps to strengthen all the information-related benefits of MT resources on performance, i.e., knowledge of foreign market opportunities, advice and experiential learning, and referral trust and solidarity and institutional benefits (Acquaah, 2007; Zhou et al., 2007b), with the efficacy of its market sensing and customer linking through market intelligence generation, dissemination, and responsiveness (Cadogan et al., 2002).

First, MO provides a market focus to the exporting firm’s development and use of MT. While firms with business ties and institutional ties can generate a wide range of information and knowledge, MO can increase effectiveness and efficiency of information generation about foreign markets with a focus on customers and competitors. This is particularly important for Chinese firms because their institutional ties lack an effective mechanism to ensure long-term cooperation due to the unique hierarchical political system, bureaucracy and opportunistic behaviours caused (Sheng et al., 2011). Firms, therefore, need to overcome the short-term nature of institutional ties by developing and employing MO capability to create an organizational culture that shapes an integrated firm-wide effort to respond efficiently and effectively to customers and competitors (Zhou, Brown, Dev & Agarwal, 2007a).
A market-oriented organization treats profitably achieving and maintaining superior customer value as the priority, and establishes firm-wide norms and beliefs that guide organizational behaviours including orientation towards customers and competitors (Narver & Slater, 1990). Customer orientation focuses on the sufficient understanding of existing and potential customers’ value chains and dynamics to be able to continuously provide superior value; competitor orientation emphasizes understanding competitors’ strengths and weaknesses and monitoring their capabilities and strategies (Narver & Slater, 1990). Therefore, market-oriented firms can use their ties with other business executives and government officials better in terms of generating more customer-oriented and competitor-oriented information in order to employ this valuable information to improve product design and delivery, craft marketing strategies, develop competitive strategies and develop customer service.

Second, MO strengthens the effect of MT on export performance by disseminating the intelligence that MT generate throughout the organization. Generating market information is only the first step; information becomes useful only when it is shared, understood and used across functions (Hult et al., 2005). Only through dissemination can the firm create a shared consensus on the meaning of the information and generate plans to deal with this knowledge (Jaworski & Kohli, 1993).

A market-oriented firm has the capability of information dissemination to share information generated about customers, competitors and the external environment throughout the organization and create a consensus regarding the meaning of such
information (Sinkula, 1994). It represents the firm’s absorptive capacity, including its ability to disseminate and process information, with its scope and organizational structure (Cohen & Levinthal, 1990). Absorptive capacity is complementary to the advice and experiential knowledge provided by MT partners by providing shared and interpreted information about customers, competitors and the external market (Hult et al., 2005; Hunt & Morgan, 1995), and consensus of this information. The more adept a firm is at disseminating and interpreting this information and creating an agreed understanding of it, the sooner the firm can act on those shared beliefs and create value from the information-based advantage of MT. Information sharing increases internal sources of knowledge which can provide a more accurate assessment of customer, competitor and environmental behaviour (Kohli & Jaworski, 1990). Thus, information dissemination, along with the market focus and responsiveness, plays a pivotal role in turning MT’s information advantage into competitive advantage over rivals through meeting customer needs and adjusting offerings (Ellis, 2007).

Third, MO strengthens the effect of MT on export performance by a mechanism of responsiveness to the market-related intelligence that business and institutional ties create. Market responsiveness, another element of MO, is a firm’s improvements or changes in market targeting, and product, distribution, and promotion strategies on the knowledge it has generated and disseminated (Hult et al., 2005). By acting on the customer, competitor and other external context information obtained firms can create or sustain an advantage over rivals.

Firms with extant business and institutional ties may rely on market
responsiveness in order to secure the benefits of MT-based advantage. Firms with MO capabilities can be more flexible and quick to respond to a dynamic environment in international markets. For example, such flexibility and speed of response in conjunction with trust-based interpersonal ties and interactions have underpinned the good reputation of Chinese manufacturers with this capability in foreign markets (Zhou et al., 2007b). Equipped with information responsiveness skills and abilities, these firms can effectively and efficiently respond to market needs in a way that elicits favourable customer response (Kohli & Jaworski, 1990).

In sum, based on MT benefits, namely market opportunity recognition and personal advice and referral and institutional support, business and institutional ties are strategically valuable and their performance results in successful outcomes via overcoming resource deficiency, building up credibility and legitimacy (Acquaah, 2007; Peng & Luo, 2000), and providing an efficient and effective way of undertaking foreign business. The effects of MT on export performance may be strengthened by a company’s MO with its market focus and the efficacy of market intelligence, dissemination, and responsiveness. Therefore, we have:

*Hypothesis 2a:* The relationship between business managerial ties and export performance will be stronger for firms with a higher degree of market orientation.

*Hypothesis 2b:* The relationship between political managerial ties and export performance will be stronger for firms with a higher degree of market orientation.

**METHOD**
Sampling and Data Collection

We collected data from exporting manufacturers in China to test the model. China offers a rich context to explore the relationships of MT, MO, and export performance. First, motivated by pressures from globalization and reforming with the objective to improve competitiveness, many Chinese firms including state-owned enterprises (SOEs) and private firms have adopted a market-oriented approach (Wei & Lau, 2008). Second, the guanxi network embedded in China can provide a vivid and promising ground for studies of the effects of MT on firms’ operations and performance (Park & Luo, 2001). Third, China is the biggest emerging economy, and the largest trading nation (WB, 2014). Exporting is still the dominant mode of international market participation for a majority of firms from emerging economies. Finally, MO and MT have been studied in the Chinese context (e.g., Murray, Gao, Kotabe, & Zhou, 2007; Peng & Luo, 2000), which provide both rich research experience and useful measurement instruments proved to have a high level of reliability and validity.

We collected data from a sample of exporting manufacturers in Fujian Province, one of the top exporting provinces in China, with an export volume of USD 56.98 billion (NBSC, 2009). A random sample of 600 manufacturing firms involved in exporting was drawn from the Exporting Firms Directory of Fujian Province consisting of 7,300 firms.

We employed a high level of personal involvement such as telephone calls. These firms were contacted by telephone to explain the purpose of the research, to ask
for their management’s cooperation in the research and to identify their appropriateness for the study. After multiple telephone calls and emails, 501 firms which agreed to participate were identified to meet the necessary standard. Of the 99 firms excluded in this process, 21 could not be contacted because of incorrect contact details, 49 were export intermediaries, 22 refused to take part and seven had ceased exporting.

Because measurement constructs in this study were adapted from previous research and developed originally in English, we employed a back-translation process to transfer all questionnaire items into Chinese except for the MO scales provided by researchers who had used them in Chinese studies (Murray et al., 2007).

Questionnaires with cover letters and prepaid postage envelopes were mailed to the CEOs/managing directors of these firms when their participation had been secured. Respondents were asked to provide information for their organization’s MO, MT and performance in their most important export market. To increase the response rate, the questionnaire was limited to three pages. Due to the firms’ prior agreement of participation, the initial mailing and two following waves of surveys produced 285 responses. Of these responses, 39 had excessive missing data, and 16 reported use of multiple channels for their most important export market. These responses were all excluded from subsequent analysis, leaving a data set comprising observations from 230 exporting firms, with a response rate of 45.9%.

To assess potential non-response bias, we followed Armstrong and Overton (1977) and compared early and late respondents with respect to various firm
characteristics (i.e., ownership, size, and exporting experience) and the construct measures. No significant differences between these two groups were found, indicating that non-response bias was not a significant problem.

**Measures**

*Independent variables.* Table 1 reports the measures and results of validity analysis. To gauge *Business ties* and *Institutional ties*, we adapted Peng and Luo’s (2000) measures because of their theoretical strengths and inclusiveness and high reliability and consistency (e.g., Acquaah, 2007; Li et al., 2008; Zhou et al., 2007b). Six items in these scales encompass the exporting firm’s networks with (1) top managers at other firms, and (2) government agencies, respectively. The respondents were asked to assess the extent to which their firms have used personal networks in these dimensions. These items of networks are scaled from 1 = ‘very little’ to 7 = ‘very extensive’.

Various constructs for *MO* were considered. Those developed by Kohli et al. (1993) and Narver and Slater (1990) are the most often used (Kirca et al., 2005). However, they are developed and utilized generally for the context of domestic operation. Following Cadogan et al. (2001), we adopted an 11-item (seven-point) scale rooted in the mainstream MO studies with a focus on exporting. It is shown to be reliable and valid in the Chinese context (Murray et al., 2007). The *MO* construct includes three components (market intelligence generation, dissemination, and responsiveness) (see Table 1 for details). All these items were used to capture
respondents’ level of agreement with the statements on a seven-point scale ranging from ‘strongly disagree’ to ‘strongly agree’. We then combined these into one construct.

We established the moderation variable by multiplying Business ties and Institutional ties by MO. A high level of multicollinearity is a typical problem when an interaction term is composed of correlated variables. To eliminate the suspicion that interaction items are significant only because they overlap with other nonlinear items, we followed Cortina (1993) and used the squared terms of the covariates. Thus, we expect that multicollinearity is not overly influencing the results.

**Dependent variable.** Accurate objective performance data are frequently unavailable with privately-held firms and conglomerate business units (Dess & Robinson, 1984). Subjective operationalization is chosen when non-financial performance is concerned or when objective financial measures are unavailable (Brouthers, Brouthers, & Werner, 2003). Scholars emphasize the use of composite (Hult et al., 2008; Morgan, Zou, Vorhies, & Katsikeas, 2003) or multi-item (Katsikeas, Leonidou, & Morgan, 2000; Lages et al., 2009) measures of Export performance due to their importance and applicability. Perceptual measures of overall success of international business or success in achieving organizational goals have been recommended by researchers (Cavusgil & Zou, 1994; Morgan, Kaleka, & Katsikeas, 2004). Following Katsikeas et al. (2000), we used a four-item scale to measure the respondents’ levels of agreement with statements concerning the achievement of several objectives in the firm’s most
important international market in the last three years (see Table 1 for details).

(Insert Table 1 here)

Controls. We controlled for those factors past research reveal to influence export performance, including firm size, industry, exporting experience, degree of internationalization, external uncertainty, R&D, and ownership. Firm size is operationalized as the number of employees in the firm (Wu, Sinkovics, Cavusgil & Roath, 2007). Based on the Standard Industrial Classification (SIC) of Chinese Export Commodities (MOFCOM, 2006), we code firm Industry (domestic articles such as building and decorating materials, electrical & electronic, clothing, food, and industrial materials & products) as dummy variables. Exporting experience was measured as the number of years of participation in exports (Aulakh, Kotabe & Teegen, 2000). Degree of internationalization is measured by the number of export markets. Respondents were also asked to specify the percentage of R&D to total revenue in the past year. Adapting Shervani et al.’s (2007) operationalization, External uncertainty was measured with a four-item semantic differential scale. Finally, to highlight the differences that exist between Ownerships of Chinese firms, we identify four types of firm ownership (SOEs, private firms, foreign firms, and joint ventures), which were coded as dummy variables.

Common methods variance. All information was collected from the same respondent of an organization at the same time, so we took ex ante and ex post measures to
control for common method variance problems (Podsakoff, MacKenzie, Lee & Podsakoff, 2003; Podsakoff & Organ, 1986). Firstly, some variable items were deliberately reverse-scaled to avoid the occurrence of response patterns affecting data accuracy. Secondly, some variables (i.e. exporting experience) can be independently verified from other sources and are ‘objective’ in nature. Thirdly, independent and dependent variables are not similar in content. Fourthly, multiple scales were used to catch cognitive independent constructs such as export performance.

Finally, we conducted three tests to rule out this issue. Following Ramani and Kumar (2000), we used Harmon’s one-factor test by entering all variables in this study for a factor analysis. The result showed a nine-factor solution in which the largest factor explains only 17.97\% of the variance. In addition, following Morgan et al. (2004) we used confirmation factor analysis (CFA) to test a single-factor model. The fit indexes ($\chi^2$ (275) = 2289.28, $p < 0.00$; TLI = 0.257; CFI = 0.319; IFI = 0.324; RMSEA = 0.179) suggest a poor model fit. Moreover, we employed the marker variable (MV) method (Lindell & Whitney, 2001). To proxy CMV, we added an item pertaining to asset specificity as the MV, which has little theoretical association to at least one of our variables. We selected the lowest positive correlation ($r = 0.05$) between the MV and other variables to adjust the variable correlations and statistical significance. The partial correlation results after we control for the MV effect indicate no significant change among the important constructs. Thus common methods variance is not a threat in this research.
Construct validity. We established the content validity of the instrument during the development process of the scales by excluding variables and items considered irrelevant by the researchers referred to (Cavusgil & Zou, 1994). Following Anderson and Gerbing (1988), we assessed the construct validity of the latent constructs with a four-factor CFA measurement model which includes all the theoretical measures estimated. For the sample, the standardized factor loadings for each individual indicator on its respective constructs are statistically significant ($p < 0.000$) and sufficiently larger than an arbitrary 0.50 expect for only one item (Hair, Black, Babin, Anderson, & Tatham, 2006). As Table 1 shows, the model fits the data satisfactorily, in support of the dimensionality of the constructs. Moreover, all composite reliabilities (ranging from 0.775 to 0.905) are greater than the 0.70 benchmark, with the average variance extracted (AVE) indices greater than or close to the 0.50 cut-off (Hair et al., 2006). Thus, these measures demonstrate adequate convergent validity and reliability.

We used two methods to assess the discriminant validity of the measures. First, we examined the chi-square difference by running pair-wise tests for all the scales. All chi-square differences have high significance (e.g., the test for Institutional ties and External uncertainty, $\Delta \chi^2 (1) = 68.59$, $p = 0.00$), which indicates the discriminant validity (Anderson & Gerbing, 1988). Second, we checked the shared variance between all possible pairs of constructs to examine whether they were less than the AVE for the individual constructs. The results show that the AVE for each construct was much greater than its highest shared variance with other constructs, in additional
support of discriminant validity (Fornell & Larcker, 1981). These results indicate that the measures in this study have satisfactory reliability and validity.

**ANALYSES AND RESULTS**

Table 2 reports the descriptive statistics and correlation matrix.

(Insert Table 2 here)

To test the Hypotheses, we employed hierarchical regression analysis. We estimated three regression models. Model 1 is a base model, including the firm characteristics (*Ownership*, *Industry*, *Firm size*, *Exporting experience*, and *Degree of internationalization, R&D*), *External uncertainty*, and *MO* as the control variables, and *Export performance* as the dependent variable. *Business ties* and *Institutional ties* were added based on Model 1 as the independent variable respectively in Model 2. Finally, Model 3 was added moderation terms based on Model 2.

The results of the hierarchical regressions are presented in Table 3. We calculated the variance inflation factors (VIF) scores for the regression models, and found no VIF score larger than 4.76, indicating no issue of multi-collinearity with our data. The base model significantly explains 17.3% of the variance in *Export performance*. *R&D* is significantly and positively related to *Export performance*. *Domestic articles, electrical & electronic, clothing and food industries*, and *External uncertainty* are significantly and negatively related to *Export performance*.

(Insert Table 3 here)

In Model 2 adding *Business ties* and *Institutional ties* increases explained
variance in Export performance over the base model. Business ties ($p < 0.05$) and Institutional ties ($p < 0.01$) are both significantly associated with Export performance, supporting Hypothesis 1a and 1b.

In Model 3, adding the moderation terms further improves the explained variance of Export performance based on Model 2. The moderation terms are positively and significantly linked to Export performance ($p < 0.05$), supporting Hypothesis 2a and 2b. To ensure the robustness of our estimations, we also applied structural equation modelling (SEM) in AMOS statistical package to examine the moderation model (Model 3) and resulted in similar results that provide support to Hypothesis 2a and 2b (Overall Model Fit: $\chi^2 (482) = 1178.648$, $p < 0.00$; IFI = 0.973; TLI = 0.966; CFI = 0.942; and RMSEA = 0.045. R-square = 0.327).

**DISCUSSION**

**Theoretical Implications**

This research was motivated by a fundamental theoretical interest in assessing the linkage between exporting firms’ resources, capabilities and performance (Peng & Luo, 2000). Although the ideas that MO and MT as resources and capabilities may interact to boost organizational performance are straightforward, little attention has been given to these issues in an exporting setting.

The literature has well documented that organizations take advantage of MT resources for access to valuable information and resources, referral and trust, and institutional support and, therefore, for superior performance (Acquaah, 2007; Li et al.,
2009; Peng & Luo, 2000). However, two important and related questions remain unanswered: (1) whether this relationship applies to firms that export to foreign markets as exporting exposes firms to a much greater level of complexity; (2) whether and how MO provides a platform for well networked firms to heap more value from their MT-based benefits. Drawing on the RBV and MO literature, we suggest that exporting firms can gain advantage from MT’s information-related benefits and institutional support (Acquaah, 2007; Zhou et al., 2007b); MO can further help these firms improve export performance with the market focus and capabilities of disseminating and responding to intelligence generated from their MT.

Our empirical studies of a sample of Chinese exporting firms provide support for our hypothesized relationships that MT resources contribute to export performance; firms with MT can have even better export performance when they possess MO. These findings enrich our knowledge of a firm’s MT, MO, and export performance.

This research contributes to the literature in two ways. First, it adds to the export literature by providing a new determinant of MT to export performance (Sousa et al., 2008; Zou & Stan, 1998). Exporting firms’ exposure to international markets forms a serious challenge due to the considerable variety of these markets, compared to their domestic counterparts who do not export. We suggest that exporting firms can enjoy advantage from having ties with executives from other businesses and institutional officials because these ties provide access to valuable resources, information and knowledge, and institutional support, all of which are important for exporting operations (Acquaah, 2007; Park & Luo, 2001).
Second, this research advances the MO and MT literature by explaining that market-oriented companies can provide a market focus and employ the information dissemination and responsiveness mechanism in MO to guide their information generation from MT for better export performance. Such a perspective has been overlooked in prior MO and MT studies of international firms. We use the RBV (Barney, 1991; Barney et al., 2001) and the MO literature (Cadogan et al., 2002; Kohli & Jaworski, 1990; Narver & Slater, 1990) to suggest that MO can strengthen MT-based advantage to outperform rivals. Thus, we shed some light on the inquiry on the interplay of the two important resources and its performance implication.

There may be an argument for reversed causality where exporting firms with better performance have the slack resources to invest in MT. However, prior theoretical and empirical literature has shown causal effects of MT on firm performance rather than the reverse (Ismail et al., 2013; Li et al., 2008; Peng & Luo, 2000). The link we investigate, herein, is consistent with prior research. A number of firms’ anecdotal evidence suggests that the finding that MT leads to performance occurs in real companies. For example, Avon used ties to introduce direct marketing into China and, hence, opened up the market (Luo, 2000).

Although cross-section studies do not allow us to directly control for possible reverse causality (Meyer & Sinani, 2009), the moderating effect examined makes a simple reverse causality argument less tenable (Zhang, Li, Hitt, & Cui, 2007). In additional analyses, we tested whether the interaction of an exporting firm’s performance with its MO is associated with MT, and found no statistically significant
results. The additional analyses help to rule out the concern that export performance might increase MT level. Therefore, even if some amount of reverse causality was present, it is unlikely to remove the effect of MT suggested by the results. Nonetheless further research can consider collecting longitudinal data to fully control for the likely reverse causality.

**Managerial Implications**

Our findings provide managers with deeper understanding of how to achieve superior export performance, at least in the context of China. First, this research shows that MT have positive effect on firms’ export performance. Connections with entities in both business and institutional domains prove to be valuable assets in boosting an export firm’s performance in that they can provide important access to the useful resources it needs for exporting success. These ties help exporting companies to address the difficulties of tackling significant complexity and uncertainty in exporting markets. Thus, managers are encouraged to actively build and take advantage of ties with the senior executives of their suppliers, competitors and buyers, as well as officials at various levels of regulative and supporting organizations such as government, industrial bureaus, tax bureaus, state banks, and commercial administration bureaux.

Second, although MT are positively connected with export performance, companies can further enhance their export performance by developing MO. MO can provide a market focus to the generation and use of information generated from MT to
help the firm better satisfy customer wants and needs and deal with competitors moving into the export markets, so that better marketing strategies can be developed and implemented. As a result, the firm can harvest greater customer satisfaction and loyalty and, hence, export performance. Therefore, managers are advised to develop MO in their organizations by establishing an organization-wide culture and inter-functional activities of long-term profit-orientation and customer- and competitor-orientation that actively develop, share and respond to market information.

**Limitations and Further Research Directions**

This study is subject to several limitations. First, this research employed cross-sectional data instead of longitudinal data. Although longitudinal research designs are logistically difficult and time consuming, they would enable time-series data analysis. On the other hand, cross-sectional data were necessary and appropriate to explore what is happening at a certain time point. However, they could not be capable of fully explaining the dynamic processes of developing MT and MO. Given the limitations of the cross-sectional nature of a survey study, it would be better for future research to conduct a longitudinal method to investigate the dynamic development and evolution of MO and MT of exporting firms and their corresponding effects on export performance, and the possible reverse causality between MT and performance.

Second, future research can adopt a multi-informant approach in the questionnaire survey, although common methods variance was not found to be
problematic in this study which applied a single-informant design. Due to the belief
that CEOs should well understand their organizations and operations, we asked them
for information about MO, MT, and export performance. It would be more accurate to
have additional informants, i.e. exporting directors for questions about export
performance. Given the difficulty of implementing firm-level survey in emerging
economies, future studies still need to employ multiple-respondent methods to
improve reliability of the constructs (Wei & Lau, 2008).

Third, although we have included export experience, we did not control for firm
age and organizational slack (except for firm size measured as number of employees)
(Sui & Baum, 2014). Both can influence a firm’s export performance. Firm age,
representing a company’s experience, can influence export performance. In addition,
organizational slack is important for firm performance. As Peng et al. (2010) point out,
by effectively lifting resource constraints slack can help Chinese firms (1) facilitate
innovations for product development, (2) facilitate more effective strategic changes in
the face of environmental challenges, and (3) overcome the challenge from shortage
of capital due to weak financial infrastructure for quick response to market demands.
Another study using data from China reveals a U-shaped relationship between
financial slack and performance (Tan & Peng, 2004). A recently study (Kaleka, 2012)
confirms a similar result for exporting ventures that financial capital can maintain the
continuity and effectiveness of exporting activities. On the other hand, it can reduce
efficiency by creating overconfidence in investing and loosen control of expenditure.
Therefore, further research should consider including more influential variables
including firm age and organizational slack.

Fourth, our research is limited with the scope of the data. Specifically, our data do not have information on firm past export performance and environmental dynamics. Controlling for firm past export performance helps address the concern of reverse causality between MT and export performance. Environmental dynamics should also be controlled for as it may influence export performance. Future research may include these factors into its research design.

CONCLUSION

This study examines how MT lead to superior export performance and how MO strengthens the link. We propose that (1) MT, consisting of business ties and institutional ties, provide exporting firms access to valuable resources, such as international market information and knowledge that work as export performance boosters; and (2) MO provides important market sensing and linking to the benefits of MT, which help the firm to be able to better understand the marketplace, develop competitive advantage and improve export performance. Here we contribute to the literature by examining the moderation effects of MO on MT/export performance relation in an international context. Our study provides initial empirical support for the notion that firms with abundant MT and actively utilizing MO will have superior performance, at least in an exporting context.

NOTES
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REFERENCES


Hult, G T. M., Ketchen, D. J., Jr., Griffith, D. A., Chabowski, B. R., Hamman, M. K., Dykes, B. J.,


Figure 1. Conceptual model
<table>
<thead>
<tr>
<th>Item</th>
<th>SFL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Orientation</strong>: CR=0.87, AVE=0.62, HSV=0.24</td>
<td></td>
</tr>
<tr>
<td><strong>Intelligence generation</strong>: CR=0.87, AVE=0.63</td>
<td></td>
</tr>
<tr>
<td>• In this company, we generate a lot of information concerning trends (e.g., regulations, technological developments, political, economic) in our export markets.</td>
<td>0.78</td>
</tr>
<tr>
<td>• We constantly monitor our level of commitment and orientation to serving export customer needs.</td>
<td>0.76</td>
</tr>
<tr>
<td>• We periodically review the likely effect of changes in our export environment (e.g., regulation, technology).</td>
<td>0.82</td>
</tr>
<tr>
<td>• We generate a lot of information in order to understand the forces which influence our overseas customers’ needs and preferences.</td>
<td>0.82</td>
</tr>
<tr>
<td><strong>Intelligence dissemination</strong>: CR=0.83, AVE=0.55</td>
<td></td>
</tr>
<tr>
<td>• Too much information concerning our export competitors is discarded before it reaches decision makers.</td>
<td>0.79</td>
</tr>
<tr>
<td>• Information which can influence the way we serve our export customers takes forever to reach export personnel.</td>
<td>0.76</td>
</tr>
<tr>
<td>• Information about our export competitors’ activities often reaches relevant personnel too late to be of any use.</td>
<td>0.71</td>
</tr>
<tr>
<td>• Important information concerning export market trends (regulation, technology).is often discarded before it reaches decision makers.</td>
<td>0.70</td>
</tr>
<tr>
<td><strong>Intelligence responsiveness</strong>: CR=0.86, AVE=0.69</td>
<td></td>
</tr>
<tr>
<td>• If a major competitor were to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately.</td>
<td>0.74</td>
</tr>
<tr>
<td>• We are quick to respond to significant changes in our competitors’ price structures in foreign markets.</td>
<td>0.87</td>
</tr>
<tr>
<td>• We rapidly respond to competitive actions that threaten us in our export markets.</td>
<td>0.88</td>
</tr>
<tr>
<td><strong>Managerial ties</strong>: CR = 0.81, AVE=0.63, HSV=0.54</td>
<td></td>
</tr>
<tr>
<td><strong>Business ties</strong>: CR=0.71, AVE=0.50</td>
<td></td>
</tr>
<tr>
<td>• The extent to which the top managers of your company have utilized personal ties, networks, and connections during the last three years with top managers of domestic buyer firms.</td>
<td>0.68</td>
</tr>
<tr>
<td>• The extent to which the top managers of your company have utilized personal ties, networks, and connections during the last three years with top managers of domestic supplier firms.</td>
<td>0.73</td>
</tr>
<tr>
<td>• The extent to which the top managers of your company have utilized personal ties, networks, and connections during the last three years with top managers of domestic competitor firms.</td>
<td>0.71</td>
</tr>
<tr>
<td><strong>Institutional ties</strong>: CR=0.90, AVE=0.76</td>
<td></td>
</tr>
<tr>
<td>• The extent to which the top managers of your company have utilized personal ties, networks, and connections during the last three years with political leaders in various levels of the domestic government</td>
<td>0.85</td>
</tr>
<tr>
<td>• The extent to which the top managers of your company have utilized personal ties, networks, and connections during the last three years with officials in domestic industrial bureaus.</td>
<td>0.91</td>
</tr>
<tr>
<td>• The extent to which the top managers of your company have utilized personal ties,</td>
<td>0.85</td>
</tr>
</tbody>
</table>
networks, and connections during the last three years with officials in domestic regulatory and supporting organizations such as tax bureaus, state banks, commercial administration bureaus.

External Uncertainty: CR=0.78, AVE=0.48, HSV=0.03
- Easy or Difficult to monitor trends 0.70
- Sales forecasts are accurate or inaccurate 0.81
- Easy or Difficult to gauge competition 0.56
- The market is well known to us or not 0.67

Export Performance: CR=0.91, AVE=0.71, HSV=0.09
- Our most important market has been very profitable during the past three years. 0.71
- Our most important market has achieved rapid sales growth during the past three years. 0.84
- Our most important market has very satisfactory export performance during the past three years. 0.92
- Our most important market has achieved our company’s initial strategic objectives during the past three years. 0.89

Overall Model Fit: $\chi^2(254)=395.02$, $p<0.00$; IFI=0.95; TLI=0.95; CFI=0.95; and RMSEA=0.05

Notes: Sample size = 230; SFL=standardized factor loading; CR=composite reliability; AVE=average variance extracted; HSV=highest shared variance with other constructs.
Table 2. Descriptive statistics of the constructs

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. R&amp;D</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Firm size</td>
<td>-0.10</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Exporting experience</td>
<td>-0.09</td>
<td>0.27**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Degree of internationalization</td>
<td>-0.09</td>
<td>0.31**</td>
<td>0.37**</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. External uncertainty</td>
<td>0.04</td>
<td>-0.02</td>
<td>0.04</td>
<td>-0.06</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Export performance</td>
<td>0.15*</td>
<td>0.00</td>
<td>-0.09</td>
<td>0.03</td>
<td>-0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Business ties</td>
<td>0.01</td>
<td>0.10</td>
<td>0.00</td>
<td>0.17**</td>
<td>-0.13*</td>
<td>0.17**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Institutional ties</td>
<td>0.06</td>
<td>0.07</td>
<td>-0.02</td>
<td>0.15*</td>
<td>-0.10*</td>
<td>0.22**</td>
<td>0.54**</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>9. Market orientation</td>
<td>0.00</td>
<td>0.04</td>
<td>0.01</td>
<td>0.00</td>
<td>-0.09</td>
<td>0.22**</td>
<td>0.01</td>
<td>-0.05</td>
<td>1.00</td>
</tr>
</tbody>
</table>

M  
0.08  1200.41  9.66  12.27  3.65  4.44  3.89  4.20  5.21
SD   
0.08  2644.32  6.64  14.61  1.13  1.45  1.56  1.85  1.08

Note: n=230; * p < 0.05; ** p < 0.01 (two-tailed test).
Table 3. Results of hierarchical regression analysis: Standardized estimates (t-value)

<table>
<thead>
<tr>
<th>Predicting variables</th>
<th>Regression models</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
</tr>
<tr>
<td>Ownership</td>
<td>-0.05</td>
</tr>
<tr>
<td>(SOEs)</td>
<td>(-0.64)</td>
</tr>
<tr>
<td>Private firms</td>
<td>0.17</td>
</tr>
<tr>
<td>(1.46)</td>
<td>(1.06)</td>
</tr>
<tr>
<td>Foreign firms</td>
<td>0.07</td>
</tr>
<tr>
<td>(0.59)</td>
<td>(0.43)</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.01</td>
</tr>
<tr>
<td>(0.18)</td>
<td>(-0.45)</td>
</tr>
<tr>
<td>Exporting experience</td>
<td>-0.07</td>
</tr>
<tr>
<td>(0.96)</td>
<td>(-0.63)</td>
</tr>
<tr>
<td>Degree of Internationalization</td>
<td>0.09</td>
</tr>
<tr>
<td>(1.15)</td>
<td>(0.75)</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td></td>
</tr>
<tr>
<td>Domestic articles</td>
<td>-0.33***</td>
</tr>
<tr>
<td>(-30.15)</td>
<td>(-30.14)</td>
</tr>
<tr>
<td>Electrical &amp; electronic</td>
<td>-0.18**</td>
</tr>
<tr>
<td>(-2.05)</td>
<td>(-2.22)</td>
</tr>
<tr>
<td>Clothing</td>
<td>-0.45***</td>
</tr>
<tr>
<td>(-40.36)</td>
<td>(-40.32)</td>
</tr>
<tr>
<td>Food</td>
<td>-0.28**</td>
</tr>
<tr>
<td>(-2.57)</td>
<td>(-2.98)</td>
</tr>
<tr>
<td>R &amp; D</td>
<td>0.15**</td>
</tr>
<tr>
<td>(2.41)</td>
<td>(2.17)</td>
</tr>
<tr>
<td>External uncertainty</td>
<td>-0.11*</td>
</tr>
<tr>
<td>(-1.75)</td>
<td>(-1.91)</td>
</tr>
<tr>
<td>MO</td>
<td>0.18***</td>
</tr>
<tr>
<td>(2.81)</td>
<td>(2.86)</td>
</tr>
<tr>
<td><strong>Hypothesized effects</strong></td>
<td></td>
</tr>
<tr>
<td>Business ties</td>
<td>0.19**</td>
</tr>
<tr>
<td>(2.25)</td>
<td>(2.02)</td>
</tr>
<tr>
<td>Institutional ties</td>
<td>0.25***</td>
</tr>
<tr>
<td>(3.26)</td>
<td>(2.92)</td>
</tr>
<tr>
<td>Business ties*MO</td>
<td>0.15**</td>
</tr>
<tr>
<td>(2.63)</td>
<td></td>
</tr>
<tr>
<td>Institutional ties*MO</td>
<td>0.13**</td>
</tr>
<tr>
<td>(2.36)</td>
<td></td>
</tr>
<tr>
<td><strong>F-value</strong></td>
<td>3.48***</td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>0.17</td>
</tr>
<tr>
<td><strong>R² change from Model 1</strong></td>
<td>0.04***</td>
</tr>
<tr>
<td><strong>F-value for R² change</strong></td>
<td>3.48</td>
</tr>
</tbody>
</table>

*a Treated by adding squared terms of covariates based on Cortina’s (1993) suggestion on interaction terms.

*Note: n=230; * p<0.10; ** p<0.05; *** p<0.01.