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Business group attributes and internationalization strategy in China

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Abstract Business groups play a critical role in the internationalization of Chinese firms, but empirical efforts on this topic are limited. This study aims to fill this gap by examining the impacts of group-specific attributes on the pursuit of different internationalization strategies. Our findings from 219 Chinese business group affiliates show that horizontal linkages among group affiliates are more positively related to asset-seeking internationalization, whereas vertical linkages are more positively related to market-seeking internationalization. We contribute to the literature by moving a step forward to examine if business group attributes are leveraged differentially in market-seeking and asset-seeking internationalization strategies.
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Introduction

Prior research on the internationalization of Asian firms has focused either on established incumbent firms or peripheral latecomer firms. However, a key contributor to outward foreign direct investment (FDI) from many Asian countries, such as China, is business groups. Business groups are generally defined as a collection of legally independent firms linked by formal and informal ties for mutual objectives (Granovetter, 1994; Khanna and Rivkin, 2001; Yiu *et al*, 2005). Chinese business groups accounted for 74 per cent of China's total outward FDI and 90 per cent of the top 40 multinational firms (in terms of outward FDI stock) in China are group-affiliated firms (Yiu, 2011). In addition, there are 30 Chinese business groups ranked on the Global 500 list. Despite the significant role played by business groups in China's outward FDI, it is surprising that research on their internationalization strategies is rather scant. This study aims to fill this gap by examining the relationship between business group attributes and internationalization strategies in the context of China.

China has been transitioning from a planned economy toward a market-based one, with reforms undertaken in various aspects of the economy. Following the inauguration of the Economic Reform in late 1978, the economy has been undergoing various changes, with state attention directed towards the development of the private sector by reforms in which state-owned enterprises were transformed into marketized enterprises with diversified ownership (Nee, 1992). Business groups are an organizational innovation resulting from the late-1970s enterprise reforms. According to the State Council of China, a key objective in their formation was to restructure large state enterprises into cross-industry, cross-region business groups and to transform them into national champions that are able to compete in both domestic and global markets (Nolan, 2001).

Relative to independent firms, business groups possess unique group-specific attributes for their affiliate firms, such as generating an efficient internal market that substitutes for institutional voids in external markets through the diversified nature of the group (Khanna and Palepu, 2000; Chang and Hong, 2002); sharing and transfer of knowledge and resources through the trusting relationships developed through particularistic ties and cultural heritage (Granovetter, 1994; Luo and Chung, 2005); and enjoying privileges from the state, such as government subsidies, exclusive rights for import and export, local monopoly and protection from foreign competition (Keister, 2000). In particular, Yiu (2011) specified that Chinese business groups possess unique multinational (ownership–location–internalization) attributes for expanding overseas, including an internal market through horizontal and vertical linkages among group affiliates, as well as institutional support from the government.

In this study, we incorporate these group attributes and examine how they can help group affiliates to pursue different types of internationalization strategies. Specifically, we argue that business groups' attributes have differential impacts on the pursuit of market-seeking and asset-seeking internationalization strategies. Whereas market-seeking internationalization exploits home-developed advantages in other emerging markets and cost advantages for staying at the lower end of the value chain in developed markets (Khanna and Palepu, 2006), asset-seeking internationalization aims at acquiring strategic assets from more advanced countries to augment competitive disadvantages in both home and host markets (Mattews, 2006). We tested our hypotheses by conducting a survey in China.

Although there has been increasing inquiry into the internationalization strategies of emerging-market and Asian firms (Luo and Tung, 2007), our study aims to move the literature forward in two ways. First, by examining and testing how business group attributes facilitate the internationalization of

Chinese group affiliates, our study highlights the role of home-grown organizational innovations, such as business groups, in spurring internationalization in countries, like China, that are at the developmental stage. Second, although researchers are still debating whether Asian or emerging-market firms go international for market-seeking or asset-seeking motives, our study goes a step further, to examine if business group attributes are leveraged differentially in market-seeking and asset-seeking FDI. Such inquiry will help benefit our understanding of the strategic outcomes to be realized in Chinese business groups and provides competitiveness implications for both practitioners and policymakers.

Business Groups in China: A Background

According to the National Statistics Bureau of China, a business group is a group of legally independent entities that are partly or wholly owned by a parent firm (known as the group company) and that are registered as affiliate firms of that parent (Lu and Ma, 2008; Carney *et al*, 2009). Parent firms have control over strategic decisions and resources within the group (Yiu *et al*, 2007b). The groups are also characterized by high industrial and regional (provincial) diversification, as well as by close relationship with local governments (White *et al*, 2008). Many business groups are state-designed, whereas others come from collectives,[1] family businesses or private owners, as well as joint-venture partners and foreign firms (Lu and Ma, 2008). Some are listed on domestic and foreign stock exchanges.

The formation of business groups can be dated to the late 1970s, when the Chinese government began investigation of market-oriented economic reform to enhance the efficiency and financial performance of state-owned enterprises. They were reformed into corporations that aimed to compete domestically and globally. The government dismantled the state bureaux that oversaw firms before the economic reforms, and transferred them into business groups (Keister, 2000), while also selecting groups of firms from the same bureau, designating a core firm and providing support in developing the group's administrative structure. With reference to the organizational structures of Japan's *keiretsu* and South Korea's *chaebol*, the government started selling off ownership of state-owned enterprises and allowed the acquisition of ownership rights among emerging firms in China (Keister, 1998). In addition to state-designed business groups, there are also business groups formed voluntarily by private parties; these are usually outside strategic industries such as defense (Carney *et al*, 2009). According to the National Statistics Bureau of China, there are currently almost 3000 officially recognized business groups, with more than 30 000 directly owned subsidiaries.

With regard to the internationalization of Chinese business groups, the government selected around 100 of the largest as ‘trial business groups’, collectively referred to as ‘national teams’ (Nolan, 2001). These business groups are mostly state-owned and directly overseen by the State Council, receiving special treatment from the government for internationalization, such as relaxation and acceleration of approval for internationalization projects, financial funding, direct and indirect subsidies, and domestic tax breaks. They had a number of economic and political goals, including supporting exports from domestic manufacturers, obtaining natural resources scarce in China, and learning about better operating and efficiency systems and practices (UNCTAD, 2006). Currently, other business groups are also involved in outward FDI and receive different degrees of government support.

There is a rich and comprehensive literature on business groups (Khanna and Palepu, 2000; Colpan *et al*, 2010) and a fast-growing body of research on emerging-market MNEs (Dunning and Lundan, 2008). However, research on the internationalization of business groups has remained limited, and many studies of emerging-market as well as developed-market MNEs focus on the internationalization of individual firms, not business groups *per se* (Chen *et al*, 2013; Colpan *et al*, 2013). Business groups, however, play a significant role in contributing to the outward FDI of many countries. For example, 74 per cent of China’s outward FDI is contributed by business groups (Sutherland, 2009). Therefore, there is a research gap between two streams of literature, which may merit exploration.

On the basis of an institutional economic perspective and existing internationalization theories, Yiu (2011) proposed that business groups constitute a micro-institutional environment for generating unique ownership, location and internalization attributes for internationalization, all of which capitalize on the leverage, linkage and learning opportunities for internationalization (Dunning, 1980; Mattews, 2002). These group-specific multinational attributes are important to help business groups stay competitive in the global market. For example, Sun (2009) conducted a case study of the internationalization strategy of the Huawei group, a business group ranking among China’s top 40 MNEs in terms of outward FDI in 2008. Sun proposed that the inward–outward linkages possessed by Huawei serve as a useful learning channel and strategic resource for complementing its strengths while offsetting its weaknesses in the global market. In addition, Mu and Lee (2005) emphasized that the Chinese government plays an important role in protecting and enhancing the competitive advantages of Chinese business groups in their outward FDI. Therefore, it is imperative to conduct further analysis on how business group attributes facilitate the internationalization strategy of group-affiliated firms.

In this article, we extend the literature to empirically test the internationalization of Chinese business groups and examine the differential impacts of business group attributes on different types of internationalization strategy. Specifically, we aim to answer the research question: How do business group attributes facilitate asset-seeking and market-seeking internationalization strategies differently?

Theory and Hypotheses

Internationalization Strategies

Given that emerging-market firms go international for both asset exploitation and asset exploration, we focus on the two major internationalization strategies: market-seeking and asset-seeking (Dunning, 1993).

Market-seeking strategy

Drawing on the asset-exploitation perspective, market-seeking strategy adheres to conventional FDI theories or the OLI paradigm. Firms are posited to possess certain resources and capabilities that MNEs can exploit to seek markets and outperform foreign competitors (Buckley and Casson, 1976). Through international expansion, firms can realize three strategic advantages, *viz.,* ownership, location and internalization (Dunning, 1980).

Market-seeking strategy can bring a number of advantages. First, it can generate economies of scale in foreign markets. Chinese firms have long been leveraging home institutional advantages such as low-cost labor and labor-intensive production, but since WTO entry in 2002 China has been under pressure to open its market to the world. Using FDI to explore market expansion opportunities in other emerging economies can keep production costs low and sustain cost advantages (Dunning, 1993). Second, a market-seeking strategy can be a defensive response to trade barriers (Taylor, 2002); many developed countries, especially the United States, suffer trade deficits with China, and Chinese firms have had their export trade hindered by a variety of tariffs and other trade barriers, such as quotas. Market-seeking strategy can secure Chinese domestic exports. Third, some Chinese firms are in a position to establish overseas operations to develop new markets, proactively entering foreign markets in order to compete in foreign and international markets. This is most common among Chinese firms in technology- and capital-intensive sectors (Buckley *et al*, 2007).

Traditional theories of internationalization and FDI can be applied to the internationalization of emerging-market firms, but may not adequately explain the presence and prominence of emerging-market MNEs. Leveraging the OLI paradigm, alternative perspectives have emerged to respond to calls to extend and refine internationalization theories (Dunning, 2000; Mattews, 2002; Luo and Tung, 2007; Witt and Lewin, 2007). New perspectives based on the asset-augmentation assumption, where firms undertake internationalization for the purpose of acquiring resources and building competitive advantages, suggest alternative explanations for emerging-market firm internationalization (Yiu, 2011); one of these is the asset-seeking strategy.

Asset-seeking strategy

Outward FDI by Chinese firms is influenced by more than simple exploitation of existing advantages. Chinese firms tend to expand overseas to seek different kinds of complementary strategic assets, which are scarce in domestic markets (Child and Rodrigues, 2005). Such complementary assets can be classified into three categories. First, Chinese firms are keen to acquire foreign knowledge in technology-intensive production. They acquire technological assets directly or by establishing research institutes overseas for obtaining self-developed technological capabilities (Zhang, 2003). Second, Chinese firms also tend to seek high-quality international brands. The acquisition of established brands and distribution channels is a quick and an effective option for Chinese firms to enhance their global reputation (Dunning, 2000) and also enhances the adaptation of products and services to conditions in host countries, thereby mitigating the liabilities of foreignness and 'emergingness'. An increasing number of Chinese firms are sufficiently financially resourceful to undertake acquisitions in both developed and emerging markets. Third, Chinese firms expand abroad for improved access to capital markets (Liu, 2001). The acquisition of foreign enterprises and launching of foreign IPOs can help redirect financial capital back to the parent firm in China.

It is important to highlight that business groups in China pursue both market-seeking and asset-seeking internationalization strategies, as shown by the internationalization of Sinopec Group. Sinopec Group is the largest petroleum and refining business group in China. By the end of 2010, its international investments and operations across 35 countries and regions accounted for 31.4 per cent of its total assets. In 2010, the group signed up to over 40 overseas acquisitions and contracting projects; one involved the acquisition of a 9 per cent stake in the Canadian Syncrude oil–sand business. Instead of proactively expanding their business in the new oil–sand industry to the group, '[Sinopec Group] is a minority partner and will not have anything to do with operating the asset …. What the investment does do is give China a glimpse at how one of the best oil and gas companies operates in the oil sands' (Koven, 2010). On the other hand, Sinopec Group completed another deal, a 40 per cent stake in Brazil's Repsol, in the same year, followed by joint-venture projects, which demonstrated significant movement in reinforcing the munificent oil-producing market in

Brazil. These examples illustrate that business groups are active in both kinds of internationalization strategies.

Hypotheses

In this study, we are particularly interested in examining how business group attributes exert differential impacts on different internationalization strategies. Adhering to the literature on emerging-market MNEs, we posit that Chinese business groups possess certain unique attributes (horizontal linkages, vertical linkages and institutional support), which leverage differentially in market-seeking versus asset-seeking internationalization. Figure 1 summarizes our theoretical framework.

Horizontal and vertical linkages

A distinctive characteristic of business groups is market internalization. Business groups, on one hand, are said to be substitutes for market failures in mobilizing capital. On the otherhand, they can be regarded as substitutes for organizational failures to allocate resources efficiently without expanding the scale of operations in less developed countries (Leff, 1978). In a similar vein, Khanna and Palepu (2000) specified that business groups generate economic value by creating an internal capital market for transferring funds, rotating talent to member firms in need, investing in an umbrella brand-name for fair dealing and assimilating foreign technology through cooperative arrangements. Business groups act as intermediaries between economic actors and imperfect markets by potentially filling institutional voids (Caves and Uekusa, 1976). Thus, it is well accepted that business groups serve as an organizational

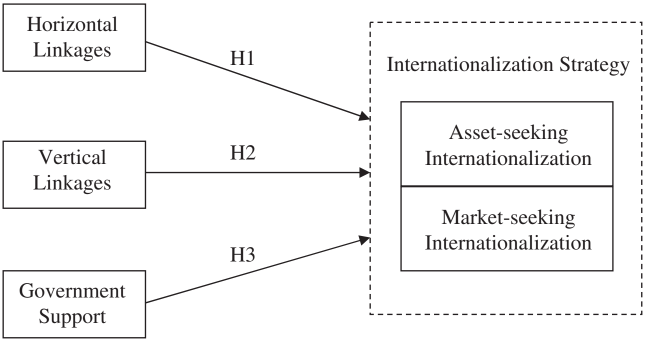

Figure 1: Theoretical model: Business group attributes and internationalization strategy.

arrangement that creates value by internalizing market transactions. The benefits offered through the internal market of business groups include lowering transaction costs, mitigating informal asymmetries, generating scope economies and enhancing market power. Business groups can be viewed as 'a loosely coupled system' (Weick, 1976; Orton and Weick, 1990; Yiu *et al*, 2007b) in which group affiliates are connected through both vertical and horizontal linkages. We posit that the internalization advantages realized from horizontal and vertical linkages are leveraged differently and hence help facilitate different types of internationalization strategies.

Horizontal linkages refer to connections through cross-ownership, interlocking directorates, and formal and informal ties among legally independent and distinctive affiliated firms. Such horizontal linkages generate cost advantages that are realized by internalizing market transactions such that affiliates can gain access to more accurate information and enjoy scope economies and superior capacity of asset deployment relative to external markets. For example, horizontal linkages generate economies of scope by facilitating mutual sharing of resources and market information, as well as joint R&D and technological innovations. Given the product and geographic diversity of the affiliates in a business group, business groups allow the transfer of assets or knowledge acquired by member firms to other members without incurring high coordination costs (Yiu *et al*, 2007b). Moreover, horizontal linkages developed through cross-shareholding and interlocking directorates serve as an effective governance mechanism for uncertainty reduction among affiliated firms. Such strong internal governance is an acknowledged characteristic of business groups, generating sustainability in internal culture and norms (Granovetter, 1994).

We argue that horizontal linkages help motivate group affiliates to undertake risky internationalization strategies that are more asset-seeking in nature. For asset-seeking internationalization aimed at acquiring strategic assets from host markets and transferring them back to the home country, horizontal linkages are more likely to encourage peer firms to acquire strategic assets for the whole group. In addition, horizontal linkages will be much more efficient than vertical linkages in leveraging the acquired assets and knowledge to group affiliates (Yiu *et al*, 2007b). In other words, the likelihood of scope economies resulting from horizontal linkages in facilitating group affiliates to go abroad and transfer assets back to the group is higher.

Hypothesis 1: The level of horizontal linkages in a business group is more positively related to asset-seeking internationalization than market-seeking internationalization.

Vertical linkages refer to the vertical structures that serve as a command chain along the hierarchy from the parent/core firm to affiliates in the business group. According to Yiu *et al* (2007b), there are three ways through which a core owner elite can effectively exert strategic control over affiliates. The first is through taking over an affiliate firm's strategic positions in management or assigning family or friendly personnel in key managerial or oversight positions. Second, the owner elite can extend control over affiliate firms by establishing a vertical ownership structure, such as a corporate pyramid. Third, the owner elite can influence an affiliate firm's decisions through controlling strategic resources, such as technology and distribution, which are critical to that firm's operations. All these vertical control strategies by core owner elites seek to concentrate power over affiliates in a business group.

Vertical linkages result in lower production costs and more stable supply. Due to severe information asymmetries and market uncertainty in emerging markets like China, vertical linkages help control price variations in factor markets within the business group by centralizing control in the core firm. In this way, production costs can be lowered, while both the quantity and quality assurance of supply can be stabilized and assured. Moreover, vertical linkage acts as a control mechanism for the core owner elite, or the individual and/or entity that owns and controls the majority of shares within the group, to exert its governance and resource allocation over group affiliates.

With the above benefits from vertical linkages, we propose that a market-seeking strategy will be a better fit, as the scale economies realized through more market expansion will further drive down costs and leverage the cost advantages conferred by vertical linkages among affiliate firms in a business group (Luo and Tung, 2007). That is, market-seeking internationalization will be more likely to maintain and reinforce internalization advantages brought by vertical linkages, which serve as competitive advantages for the group to expand internationally. In addition, market-seeking outward FDI will help build the overall image of the business group as whole, as well as reinforce strategic control within the business group. Market-seeking strategy requires more centralization of resource allocation and strategic decision making, thus leveraging the benefits of vertical linkages in the business group. Therefore, we hypothesize that:

Hypothesis 2: The level of vertical linkages in a business group is more positively related to market-seeking internationalization than asset-seeking internationalization.

Institutional support

Another unique business group attribute is institutional support, in particular support from the government for the internationalization of business groups.[2]

In China, seeing that large firms are central to the growth of late-industrializing economies, the Chinese government has been aiming to transform large state-owned enterprises into business groups equivalent to the quality of giant multinational corporations, to compete in the global market. According to Yiu (2011), Chinese business groups receive a variety of government special measures for this purpose, including regulatory support (such as speeding up their applications for outward FDI projects), financial support (such as subsidies), tax breaks and access to foreign currency (low-interest funding from state-owned banks) and technological support (such as access to research institutions).

Such regulatory, financial and technological resources supplied or subsidized by the government are unique institution-based attributes for Chinese business groups to capitalize on, in particular for market-seeking rather than asset-seeking internationalization. The rationale is that the government has great incentive to see in the outcome of Chinese firms' internationalization the furtherance of the country's political missions, such as enhancing its image in the world or obtaining natural resources (Morck *et al*, 2008). For local governments especially, regional decentralization of the fiscal budget means that they become residual claimants of local tax revenues (Walder, 1995). Thus, they have high incentive to push business groups toward the faster path of market-seeking internationalization than the longer-term orientation of asset-seeking internationalization. From affiliates' viewpoints, the preferential status and treatment of foreign firms investing in China provided by the Chinese government also encourages them to make use of these ownership advantages to gain multinational status faster, before investing back in China (Peng, 2012).

Hypothesis 3: The level of government support received by a business group is more positively related to market-seeking internationalization than asset-seeking internationalization.

Methods

Research setting and data collection

The research setting comprised Chinese business group affiliates in the manufacturing sector in 2009. We delivered questionnaires to CEOs and senior managers directly involved in internationalization projects across a stratified sample of 298 group-affiliated firms from the five provinces and municipalities with the greatest outflows of FDI in 2009 (Zhejiang, Shanghai, Guangzhou, Jiangsu and Beijing). Zhejiang province also had the greatest number of firms going for internationalization in 2009. Our study limits the sample to firms in the manufacturing sector, to control for industry differences.

Before data collection, the questionnaire was subjected to back-translation to ensure validity. The pilot results supported our intention to continue on to the larger-scale survey. With the aid of the National Bureau of Statistics of China, we sent out questionnaires and collected data through personal contact survey. Our sample only includes group affiliates with outward FDI experience. For each firm, an investigator did the interview and completed questionnaires from both CEOs and senior managers responsible for internationalization. Two respondents from each firm were surveyed. For each firm, the CEO was responsible for providing background information on the firm, as well as information regarding the business practices and operations of the business group. Another senior manager, the one most directly involved in the firm's internationalization projects, was asked to respond with regard to information on the firm's internationalization strategies and outcomes. Questionnaires completed by different respondents can reduce the potential threats of common method bias. Altogether, 298 questionnaires were collected. After removing questionnaires with substantial missing values for key variables, 219 usable questionnaires were used for analysis. Each firm represents an affiliate of one business group in our sample.

Variables and measurement

Table 1 shows the measurement items of the whole set of variables used in this study. All items of dependent and independent variables are measured by a 7-point response scale (1 = least extent; 7 = greatest extent). The dependent variables are the *asset-seeking internationalization* and *market-seeking internationalization*. We asked the senior managers involved in internationalization to indicate the extent to which internationalization has brought asset-seeking or market-seeking advantages to the firm (Dunning 1993, 2000). We measure the independent variables or business group attributes, including *horizontal linkages*, *vertical linkages* and *institutional support*, by asking CEOs to evaluate the extent of the firms acquired or assess different group-specific attributes. All the items were self-developed, based on extant literature. Table 1 presents the measurement items and results of confirmatory factor analysis (CFA).

We included several group- and firm-level control variables in our model. *Group age* is measured as the number of years that the group had been officially registered as a business group. We also controlled for firm-level effects by including firm size, firm performance and firm ownership structure in the empirical model. *Firm size* is proxied as an average of the natural log of the number of employees of a firm over the previous 3 years (2005–2007).

Table 1: Confirmatory factor analysis[a]

Construct	*Measured items of the construct*[b]	*Factor loading*
Asset-seeking strategy ($\alpha = 0.83$)	Investing heavily in cutting-edge product-oriented R&D	0.77
	Enhancing firm reputation in both domestic and foreign markets	0.60
	Paving way for launching an IPO in a host country	0.73
Market-seeking strategy ($\alpha = 0.73$)	Supporting domestic new-venture activities	0.45
	Expand markets in other emerging economies	0.45
	Facilitate strategic repositioning in domestic market	0.90
Horizontal linkages ($\alpha = 0.85$)	Internal managerial rotations	0.67
	Shared assessment, analysis or budgeting management systems	0.57
	Interdependence in buying inputs	0.68
	Interdependence in joint sales promotion and advertising campaigns	0.80
Vertical linkages ($\alpha = 0.74$)	The parent firm controls the overall strategic resources (for example, technology, networks and production) of the whole group	0.69
	The parent firm collectively implements the strategic decisions of the whole group	0.66
Government support ($\alpha = 0.83$)	Receiving information regarding tariff, non-tariff to trade, technical barriers to trade, or unfair competition in host countries	0.71
	Receiving information regarding financial support in international operations (for example, financing guarantees, business loans, insurance investment, tax)	0.68
	Receiving special treatment for internationalization from the government compared with other firms	0.72

$\chi^2(80) = 134.613$	P-value < 0.000
CFI = 0.948	RMSEA = 0.055
NFI = 0.884	Standardized RMR = 0.065

[a] $N = 219$. Composite reliability is reported in brackets.
[b] All measurement items are measured on 7-point scales.

We calculate *past financial performance* in terms of the 3-year average of return on assets in the period 2005–2007. Ownership structure can influence the propensity and approach to international expansion (Yiu *et al*, 2007a). Accordingly, we included *government ownership* and *foreign ownership*, measured by the percentage of state-controlled and foreign investor-controlled ownership, respectively.

Analysis and Results

Structural equation modeling (SEM) was used in this study. We first conducted CFA to assess the reliability, convergent and discriminant validity of the constructs, followed by Anderson and Gerbing's (1988) two-stage procedure.

Construct reliability and validity

Table 1 presents the results of CFA with measurement model loadings for items of reflective measures. The results show that the measurement model fits the data sufficiently well to accept the measurement model ($\chi^2 = 134.61$; CFI = 0.95; NFI = 0.88; Standardized RMR = 0.07; RMSEA = 0.06). The internal consistency of the benefits of different internationalization strategies and business group attributes are assessed with composite reliabilities (Fornell and Larcker, 1981). All the composite reliability values exceed the acceptable threshold of 0.7, indicating that the constructs exhibit satisfactory reliability. With respect to the convergent validity of the constructs, the standardized factor loadings of all items are statistically significant loaded on their corresponding construct. All the loadings have corresponding *t*-values greater than the minimum cut-off of 1.96 (*t*-value range = 3.04–9.04).

For discriminant validity, we compare our measurement model with two alternative models (Anderson, 1987). The first model is a three-factor model combining the benefits of both internationalization strategies into one factor, as well as combining horizontal and vertical linkages (model fit indices: $\chi^2 = 244.27$; CFI = 0.85; NFI = 0.79; standardized RMR = 0.09; RMSEA = 0.09). Another alternative model differs from the first by combining all the items of business group attributes into one factor, with a single internationalization strategy factor (model fit indices: $\chi^2 = 299.18$; CFI = 0.80; NFI = 0.74; standardized RMR = 0.09; RMSEA = 0.11). The χ^2 differences between each alternative models and our proposed model are highly significant. Therefore, we conclude that each construct is unique and has discriminant validity.

In addition to using different rater sources for a firm, we also conducted Harman's single-factor test to check if common method variance poses a threat to our results (Podsakoff *et al*, 2003). A principal component analysis of all the items was performed. Four factors were generated from the exploratory analysis and no dominant factor emerged from the unrotated factor solution. The first factor only explained 27.9 per cent of variance. Second, we performed a stronger test for method effect by using a single unmeasured latent method technique (Podsakoff *et al*, 2003), which is an appropriate method when using SEM. The goodness-of-fit indices of the common-method-variance model showed this model was significantly worse than our hypothesized measurement model (model fit indices: $\chi^2 = 472.43$; CFI = 0.64; NFI = 0.59; standardized RMR = 0.13; RMSEA = 0.15). The overall findings suggested that potential common method bias would not severely harm the analytical results.

Table 2 shows the descriptive statistics and correlations of the variables. We found that correlations of horizontal linkages and government support ($r = 0.54$), as well as that of government ownership and foreign ownership ($r = 0.55$) are moderately high, giving rise to a potential problem with multicollinearity. We computed the variance inflation factors (VIFs) to test for our variables. The individual VIF ranges from 1.02 to 3.30 and the average VIF is 1.70, none of which exceed the critical point of 10, conferring acceptable VIF levels (Cohen *et al*, 2003). The results leave us confident that multicollinearity is not a serious problem in our study.[3]

Hypothesis testing

Using the maximum likelihood estimation method, the goodness-of-fit indices for the hypothesized model are found to have a good fit (model fit indices: $\chi^2 = 190.15$; CFI = 0.98; NFI = 0.88; standardized RMR = 0.06; RMSEA = 0.03). Before assessing individual path coefficients, we compared our hypothesized model with nested models with parameter constraints (Anderson and Gerbing, 1988). In each of the nested models, different pairs of paths from

Table 2: Descriptive statistics and correlations among the variables[a]

Variables	*Mean*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1 Asset-seeking	4.32	1.40	—	—	—	—	—	—	—	—	—
2 Market-seeking	4.22	1.13	0.13	—	—	—	—	—	—	—	—
3 Horizontal linkages	4.19	1.27	0.11	−0.08	—	—	—	—	—	—	—
4 Vertical linkages	4.84	1.17	−0.05	0.15	0.13	—	—	—	—	—	—
5 Government support	4.32	1.28	−0.01	−0.06	0.54	0.04	—	—	—	—	—
6 Group age	20.55	13.39	0.02	−0.03	0.07	0.08	0.07	—	—	—	—
7 Firm size	7.10	1.17	0.03	−0.06	−0.03	−0.13	−0.12	0.12	—	—	—
8 Financial performance	0.07	0.12	−0.04	−0.05	0.12	0.00	0.06	0.05	−0.01	—	—
9 Government ownership	0.80	0.18	0.04	0.05	0.03	0.05	−0.13	0.05	−0.04	0.00	—
10 Foreign ownership	0.02	0.12	−0.08	−0.13	−0.02	−0.14	−0.02	−0.06	0.08	0.01	−0.55

[a]$N = 219$. Correlations with absolute values of 0.13 or greater are significant at the $P < 0.05$ level or better (2-tailed).

the same group-specific attributes to both internationalization strategies were set as equal. If the χ^2 values for the nested models are statistically significantly larger than the hypothesized model, the constrained paths are considered to be important and significantly distinguishable between different internationalization strategies. It therefore provides grounds for comparison of individual path coefficients. As predicted, all the χ^2 differences are significant and the results suggested that our model is acceptable for further assessment (see Table 3).

Table 4 shows the results of our hypothesized relationships. Given the comparative nature of the hypotheses, tests of differences in coefficient estimates are conducted subsequent to the structural model.

Hypothesis 1 states that the level of horizontal linkages is more positively related to asset-seeking than market-seeking internationalization. As shown in Table 4, the relationship between horizontal linkages and asset-seeking strategy is significantly positive ($P<0.05$). Also, the test of difference in coefficients is significant in the hypothesized direction ($P<0.05$). Therefore, Hypothesis 1 is supported.

Hypothesis 2 predicts that the level of vertical linkages is more positively related to market-seeking than asset-seeking internationalization. We found a negatively significant effect of vertical linkages on asset-seeking internationalization ($P<0.05$), as well as a positive significant effect on market-seeking internationalization ($P<0.05$). The test of difference in coefficient is significant ($P<0.01$), thus granting support to Hypothesis 2.

Table 3: Comparisons among alternative constrained models with hypothesized model[a]

Model	χ^2	*df*	$\Delta\chi^2$	Δdf
Hypothesized Model	190.152	131	—	—
Model 1[b]	216.891	134	26.739***	3
Model 2[c]	198.424	132	8.272**	1
Model 3[d]	205.871	132	15.719***	1
Model 4[e]	194.840	132	4.688*	1

*$P<0.05$; **$P<0.01$; ***$P<0.001$.

[a]$N=219$.

[b]Model 1: The paths linking all group-specific attributes to asset-seeking internationalization were set equal to that of market-seeking internationalization.

[c]Model 2: The two paths from horizontal linkages to both internationalization strategies were set equal.

[d]Model 3: The paths from vertical linkages to both internationalization strategies were set equal.

[e]Model 4: The paths from government support to both internationalization strategies were set equal.

For ease of presentation and comparison among models, only the χ^2 values are shown. Independent variables and control variables of hypothesized model are shown in Table 4.

Table 4: Structural model: Parameter estimates, comparisons and goodness-of-fit indices[a]

Construct	*Asset-seeking internationalization*	*Market-seeking internationalization*	*Comparisons*[b]	*Estimate difference*[c]
Horizontal linkages	0.31*	−0.13	Hypothesis 1: Asset > Market (+)	0.44*
Vertical linkages	−0.16*	0.22 *	Hypothesis 2: Market > Asset (+)	0.38**
Government support	−0.24*	0.01	Hypothesis 3: Market > Asset (+)	0.25***
Control Variables				
Group age	0.02	−0.13***	—	—
Firm size	−0.02	−0.03	—	—
Financial performance	−0.04	−0.04	—	—
Government ownership	−0.09	−0.03	—	—
Foreign ownership	−0.13	−0.07	—	—

$\chi^2(131) = 190.152$ | P-value < 0.001
RMSEA = 0.031 | P of close fit (RMSEA < 0.05) = 0.975
NFI = 0.880 | Standardized RMR = 0.059
CFI = 0.976

***$P<0.10$; *$P<0.05$; **$P<0.01$.
[a]$N=219$.
[b]'Asset' and 'market' refer to asset-seeking internationalization and market-seeking internationalization, respectively; '>(+)' refers to 'more positively related to than'.
[c]The values refer to the comparisons stated in the hypotheses.

Hypothesis 3 predicts that government support has a more negative relationship with asset-seeking than market-seeking strategy. Our results show that government support has a significantly negative relationship with asset-seeking strategy ($P<0.05$). The comparison of path coefficients is marginally significant in the hypothesized direction ($P<0.10$). Thus, we received marginal support for Hypothesis 3.

We conducted a robustness check by replicating the SEM models with separate regression analysis (with the independent variables isolated in different regression models) and tests of differences in coefficients. The robustness tests show that, though with slightly weaker findings, our results remained stable in the predicted directions.

Discussion and Conclusion

Extant research and discussion on the internationalization of Asian firms focuses on independent firms. To better understand the contributions of outward FDI in China, we have attempted to extend the current scope of literature by focusing on the internationalization of Chinese business groups. Our findings offer empirical evidence for the internationalization of business groups in China (Yiu, 2011). On the basis of an institutional economics perspective, business groups constitute a micro-institutional framework. Their affiliates possess certain unique multinational attributes, which are leveraged differentially in influencing the effectiveness of different internationalization strategies. In particular, the internal market of business groups assists member firms in more ways than substituting for market imperfections in the domestic market; it also serves as an internalization advantage for going abroad. Between the asset-seeking and market-seeking internationalization strategies, we found that horizontal linkages among group affiliates will help a member firm engage further in international expansion to acquire needed strategic assets. On the other hand, the competitive cost advantages generated from vertical linkages can encourage group affiliates to pursue market-seeking strategy instead.

Beyond that, there are several interesting findings worthy of discussion. Our analysis indicates that business group attributes may not necessarily contribute positively to internationalization. We hypothesized that group attributes lead to different degrees of positive effects on different internationalization strategies. Whereas our findings show support for our hypothesized directions of comparison between the two internationalization strategies, they also show vertical linkages and government support to be negatively related to asset-seeking internationalization. The findings may also demonstrate that efforts could be made to further investigate the possibility of contingent or nonlinear relationships in the future. Consistent with our arguments, for example, possessing certain levels of business group attributes may help group affiliates when engaging in internationalization strategies. Yet beyond certain thresholds, higher levels of group-specific attributes might instead prohibit FDI approaches. It has been suggested that institutional supports drive activity overseas to achieve 'national missions' (Buckley *et al*, 2007), which might in fact turn group affiliates away from seeking strategic assets. There are also studies arguing that strong group culture might govern or constrain the internationalization behavior of affiliates (White *et al*, 2008). Our findings call for an examination of the disadvantages or curvilinear effects of group-specific attributes, as well as contingent factors that may alter the deployment or realization of these advantages.

Managerial implications

This study suggests policy and managerial implications. While the Chinese government has exerted significant effort and special treatment in encouraging and assisting business groups in their international expansion, political interests or national missions might outweigh the interests of affiliates or the group as a whole and hence alter their direction and activity. Given further evidence, it is important for policymakers to consider the possible negative effects of excess government controls on internationalization. For instance, nowadays Chinese firms have a global reputation for having deep pockets due to 'unlimited support' from the government. As such, this attribute might distort the internationalization process without gaining optimal benefits for the firm or business group.

For group affiliates, this study provides insights for managers in that they need to consider the effects of group-specific advantages on their internationalization strategies. In particular, CEOs or managers of internationalization should consider utilizing different group-specific attributes in their international expansion, as well as considering their possible effects on different strategies, for example, whether the possession of certain attributes would be helpful in engaging in certain internationalization strategies.

Limitations and future research

We recognize, on other hand, that this research has its limitations. One is related to the cross-sectional design of the study, which prevents us from considering causal influences of our findings. A longitudinal design would be helpful to provide more direct evidence. Another limitation has to do with the measurement of our constructs. Although we measured group-specific attributes and internationalization strategies from CEOs and senior managers for internationalization, we did not measure them using other objective indicators.

We also recognize that even though the Chinese manufacturing business groups in our sample allowed us to examine them and provided supporting evidence regarding the relationship between group-specific attributes and internationalization strategies, our findings may have limited generalizability to other contexts, such as business groups in other Asian countries.

In the parallel development of literature on business groups and emerging-market MNEs, there is a research gap regarding the internationalization of business groups which is worth exploring. This article, among the first in this direction of research, offers a contribution to this area. It also demonstrates that traditional internationalization literature still applies in the business group context, but needs extension and refinement (Dunning, 2000, 2006).

In particular, business group affiliates, like other MNEs or SMEs from emerging economies, are involved in different extents and patterns of internationalization (Lee *et al*, 2013; Pananond, 2013). In the future, it is worth examining if possessing group-specific attributes leads to different international outcomes, such as the choices of developed versus emerging economies for asset-exploitative or asset-seeking purposes (Makino *et al*, 2002).

In addition, future research can extend the framework by examining different types of business groups. With few exceptions in China, most business groups are highly related to or dependent on the government. Yet other Asian business groups, such as Indian business groups or Japan's *keiretsu*, might possess different sets or extents of attributes due to their different institutional environments (Colpan *et al*, 2010; Chari, 2012). Future studies should investigate the uniqueness of group attributes across institutional contexts.

Conclusion

Research on the internationalization of Asian firms has continued for decades, but little effort has been devoted to examine the increasingly significant contribution made by business groups. This study takes an empirical approach to address if and how unique business group attributes, in terms of horizontal linkages, vertical linkages and institutional support, facilitate market-seeking and asset-seeking internationalization. Our study offers new insights into the examination of the internationalization of Chinese firms by focusing on unique attributes of new organizational forms such as business groups and moving the literature forward toward assessing the differential impacts of internationalization strategies.

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Notes

1 Collective enterprises, or collectives, are unique organizational firms in China. They refer to rural public firms under the purview of local governments based in townships and villages. Although they are usually controlled by local governments, the ultimate owners of collectives are townships and villages.

2 In general, institutional support is not confined to business groups. Firms, especially strong and powerful big businesses, can obtain government support through a variety of firm strategies and behaviors, such as government linkages (Peng and Luo, 2000) or corporate political activities (Hillman and Hitt, 1999). Here we refer to support by the Chinese government, specifically for the internationalization of business groups.

3 Multicollinearity tends not to pose a serious problem in SEM when the correlation is below 0.6, in addition to high reliability and a relatively large sample size. All the composite reliability values exceed 0.7 and have an average value of 0.79. The number of observations to the number of parameters estimated in our model exceeds the ratio of 6:1. SEM in fact has the ability to account for measurement errors, thus mitigating the threat of multicollinearity, as well as being able to manage multiple endogenous constructs (Grewal *et al*, 2004). Studies have demonstrated that SEM is robust against multicollinearity, because removing measurement errors can reduce correlations among latent exogenous variables (for example, Fornell and Larcker, 1981; Maruyama, 1998; Malhotra *et al*, 1999; Verbeke and Bagozzi, 2000). Thus, it can alleviate the problems of multicollinearity and endogeneity. In addition, we employ separate regression models (with the independent variables isolated in different regression models) for our robustness check. Our findings from the regression analyses remained robust with the SEM results.

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