



Diversification and Economic Performance: An Empirical Assessment of Chinese Firms

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Abstract. Integrating the impact of both resource and institutional factors and taking into consideration potential agency problems, this study proposes to investigate the *joint* effect of both related and unrelated diversification strategies on firm performance in an emerging economy setting and to assess empirically the hypothesized relationship using Chinese firms. The empirical results support the basic contention that both resource building and utilization through concentration and related diversification and institutional environmental management through unrelated diversification are important for firm performance in emerging economies but they must be considered together. This paper concludes with a discussion of its contributions, practical implications, and directions for future research.

Keywords: diversification, performance, emerging economies

1. Introduction

The relationship between diversification and performance has long been a central topic of research in strategic management (Ansoff, 1965; Datta, Rajagopalan and Rasheed, 1991; Goold, Campbell and Alexander, 1994; Hoskisson and Hitt, 1990; Montgomery, 1994; Palich, Cardinal and Miller, 2000; Ramanujam and Varadarajan, 1989; Rumelt, 1974). In spite of the persistent efforts from researchers over the years, firm and clear-cut conclusions remain evasive. Two theoretical rationales stand out in the probe of the diversification and performance relationship (Montgomery, 1994). The first and probably the most notable relates to resource building and utilization. This view has played an important role in explaining firm diversification and has gained greater prominence as the field focuses its attention to internal resources and capabilities (Chandler, 1962; Lengnick-Hall and Wolff, 1999; Penrose, 1959; Peteraf, 1993; Rumelt, 1974). The second rationale is the agency theory argument (Fama and Jensen, 1983; Jensen and Meckling, 1976). According to this argument, with separation of ownership and control, divergence of interests between top managers and owners and the existence of information asymmetry would create necessary conditions for top managers to pursue unrelated diversification strategies that depress firm performance.

Much of the literature on this important topic has been set in developed economies where institutional environments have evolved over time to be conducive for business activities as well as stable enough for businesses to develop effective responses. As academic community

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and businesses begin to expand their horizon and survey the business landscape of emerging economies in general, the institutional environment with which those firms must contend becomes a highly relevant part of the discourse (Aoki, 2000; Khanna and Palepu, 1997; Li, Li and Tan, 1998; Whitley, 1999). More specifically, the lack of well developed product market, capital market, and labor market (we would use the term *market condition deficiency* to represent these conditions) coupled with under-developed laws and regulations, and inconsistent enforcements of contracts (we would use the term *institutional behavior uncertainty* to characterize these challenges) suggest that conglomerate or unrelated diversification may be advantageous for firms in emerging economies (Khanna and Palepu, 1997). This research direction promises to expand the theoretical bases by which researchers understand the diversification and performance relationship under different contextual conditions. Furthermore, by integrating theories and concepts of the institutional theory of organization (Scott, 1995) with the above observations researchers will be able to provide a more comprehensive and theoretically richer assessment of the diversification and performance relationship in emerging economies.

This study therefore aims at making a dual contribution. By combining the resource and institutional explanations while considering the potential agency problems, we hypothesized the interactive impact of related and unrelated diversification strategies on firm performance emerging contexts. Furthermore, we empirically tested the proposed relationships for a sample of large firms in China's emerging economy. The empirical assessments provided preliminary support for the hypothesized relation. The paper first presents theory formulation, then empirical tests, and concludes with a discussion of the contribution and practical implications of this study, and future research directions.

2. Theoretical bases and hypotheses

The performance impact of diversification strategy has been and remains a central topic of interest in strategic management (Ansoff, 1965; Chandler, 1962; Palich, Cardinal and Miller, 2000; Rumelt, 1974; Rumelt, Schendel and Teece, 1994). Several major reviews have attempted to synthesize the progresses made through years of diligent efforts (Datta, Rajagopalan and Rasheed, 1991; Dess et al., 1995; Goold and Luchs, 1993; Hoskisson and Hitt, 1990; Montgomery, 1994; Palich, Cardinal and Miller, 2000; Ramanujam and Varadarajan, 1989). If there is a consistent message in these reviews and the conclusions derived by those who continue to conduct research in this area (Goold, Campbell and Alexander, 1994; Khanna and Palepu, 1997; Lins and Servaes, 1999, 2002; Markides and Williamson, 1994; Stimpert and Duhaime, 1997; Villalonga, 2000), it is that there is much more that we still need to explore in order to gain a deeper understanding of the impact of diversification strategies on firm performance.

More than four decades of practice in fine-tuning the corporate scope, and research on the diversification-performance relationship provide interesting insights (Goold and Luchs, 1993). Earlier years saw companies pursue diversification as if general managerial skills could apply to any type of business. When problems of resource allocation surfaced, portfolio-planning techniques gained prominence. Businesses were evaluated based on their potential for contributing to a well-balanced portfolio from a financial point of

view. Thereafter, value gaps, an indicator of poor management of a portfolio of businesses, forced companies to restructure. In an immensely influential business best-seller, Peters and Waterman (1982) proclaimed the importance of sticking to the knitting. Suddenly, getting back to the basics and concentrating on core businesses became the sacred cow of corporate strategy. Consequently, the 1990's saw many firms in developed economies downscope (Hoskisson and Hitt, 1994; Markides, 1995a, b).

At the same time, however, there are successful examples of businesses with a broad scope (Goold, Campbell and Alexander, 1994; Markides, 1997). Those companies such as Cooper Industries, GE, and ABB suggest that "sticking to the knitting" does not have to be the only solution to the corporate scope question. Even more importantly, blindly applying this logic to businesses in emerging economies without a critical assessment of its relevance and applicability may do more harm than good. After all, the institutional contexts in emerging economies may be substantially different from those in the developed economies (Aoki, 2000; Khanna and Palepu, 1997, 2000a; Li, Li and Tan, 1998; Whitley, 1999). Significant pressures exist for firms in emerging economies to imitate focused strategies widely adopted in the developed economies. National governments may urge firms to dismantle their highly diversified operations. Foreign directors on the board may also guide firms to pursue more focused strategy (Ramaswamy and Li, 2001). Furthermore, educators and consultants use received wisdoms of western strategic management theory in their teaching and consulting services. The broad trend in developed economies and the pressures of institutional isomorphism on firms in developing world underscore the importance and relevance of studying diversification and performance relationship in emerging economies by incorporating an institutional perspective.

Not surprisingly, scholars have explored this important topic and at the same time influenced business practices through their research. Earlier scholars linked synergy with the superiority of related diversification strategy (Ansoff, 1965; Chandler, 1962; Rumelt, 1974), and believed that diversification strategy is consistent with gaining greater economic efficiency (Chandler, 1962). Research publications over the years again and again reinforced the doctrine that by sharing resources and skills across multiple businesses, firms pursuing related diversification strategy would be able to achieve better economic performance (Datta, Rajagopalan and Rasheed, 1991; Hoskisson and Hitt, 1990; Montgomery, 1994; Palich, Cardinal and Miller, 2000; Ramanujam and Varadarajan, 1989). Unfortunately, results from years of research failed to provide conclusive evidence to support this line of reasoning, prompting some to muse themselves with expressions like "desperately seeking synergy" and "synergy trap," and others to declare that practitioners are relying on the face value of these arguments rather than solid evidence! As recent advances in this line of research would suggest, to move beyond a mere reliance on synergy as an explanation of diversification performance relationship, a fruitful avenue of exploration would be to switch our attention to the identification and creation of those resources and skills that form the basis for synergy (Hamel and Prahalad, 1994), and further to focus on how corporate headquarters would make useful contributions realizing those linkages (Goold and Campbell, 2002; Goold, Campbell and Alexander, 1994).

Hence, for a diversified firm to function effectively, both core competences across multiple businesses within the same corporation and the corporate parenting advantage must be

identified, developed, and matched together on a dynamic basis. For our theoretical synthesis, this aspect will be referred to as the resource-based explanation of the diversification and performance relationship.

As mentioned earlier, much of the existing studies of the diversification and performance relationship has been undertaken in developed economies, such as the US, Europe, Canada, and Japan (Palich, Cardinal and Miller, 2000), where various institutional characteristics have been *reasonably* well-established and consistent across these countries (Aoki, 2000; Khanna and Palepu, 1997). As we embrace a truly integrated global economy and begin to focus on the performance impact of diversification strategies in emerging economies, the nature of the respective institutional environments becomes an important consideration.

While there might be a great deal of difference among emerging economies (Khanna and Rivkin, 2001), it would be useful to start with commonly shared characteristics. Khanna and Palepu (1997) identified five key aspects of institutional environments in emerging economies as important when considering the impact of diversification strategy on firm performance. Specifically, the lack of well-established product markets, financial markets, and labor markets (defined together as market condition deficiency), coupled with the lack of necessary laws and regulations and inconsistent enforcement of contracts (characterized as institutional behavior uncertainty) may make it difficult for firms to pursue resource building and leverage alone in emerging economies. Along the same line, institutional theory arguments (Scott, 1995) would enable us to better understand the tasks corporations face in emerging economies. More specifically, to cope effectively with an institutional environment where product market, capital market and labor market are yet to be fully developed, and where laws and regulations yet to be formed, contract enforcement yet to be enhanced, companies may wish to pursue unrelated diversification strategy as an effective means of gaining self-generated institutional support (Khanna and Palepu, 1997). Consequently, the nature of the institutional environment and the resultant need for firms to employ an unrelated diversification strategy element in a poorly structured institutional environment constitute the institutional environment management explanation of the diversification and performance relationship.

The important admonishment of agency theory cannot be easily dismissed however. Significant separation of ownership and control exists in various types of Chinese firms. For example, Zhou and Wang (2000) observed that Chinese state owned enterprises suffer from significant agency costs, Lu (2000) depicted vividly complex ownership patterns of Chinese firms in the IT industry. Furthermore, China's investors are yet to develop their skills and ability to monitor and guide firm strategies. Owners and managers have divergent interests, and furthermore experience asymmetry of information as well—two important conditions that precipitate agency conflicts (Berle and Means, 1932; Fama and Jensen, 1983; Jensen and Meckling, 1976). Managers, unable to diversify their own risk and having the opportunity to seek personal gains, may pursue self-interested strategies such as pure unrelated diversification. Merely emphasizing the role of unrelated diversification may be misleading, as there is also the agency concern. Therefore, our theory development effort must focus on both resource-based and institution-based explanations *together*. The discussion now turns to a more detailed elaboration of these issues.

Resource-based explanation

Core competence, as envisioned by Prahalad and Hamel (1990), is the harmonized and coordinated aggregate of various production skills, together with the multitude of technologies in a diversified firm. This conception is consistent with the resource-based view of the firm (Barney, 1991; Lengnick-Hall and Wolff, 1999; Penrose, 1959; Peteraf, 1993) in that competitive advantage and subsequent superior performance will result, in part, from a coherent set of unique, valuable, in-imitable and immobile resources and capabilities within a company. It crystallizes the link between firm resources and capabilities and synergy, or the cross-utilization of strengths across businesses in a diversified firm, a concept central to the theory of diversification (Ansoff, 1965). Clearly the notion applies equally well to emerging contexts as well, with the caveat that organizational competences might be even more important in such settings (Hoskisson et al., 2000; White and Liu, 2001) due to differences in external environments. Examples of capable Chinese competitors, many of those are able to survive and thrive competing against the onslaught of multinational giants, are vivid illustration of the relevance of resource advantage (e.g., Bruton et al., 2000; Lu, 2000). Identifying, and developing core competences are important, equally important is leveraging those competences to different businesses and new opportunities, a distribution mechanism that facilitates such transfer therefore becomes part of the core competence arsenal for firms in emerging economies (Dawar and Frost, 1999). Core competences, an important construct in our understanding of diversification and performance relationship, are composed of a number of different types. They might include entrepreneurship, innovation, process improvements, transformation and diffusion.

In an attempt to improve our understanding of the process by which the corporate headquarters adds value to a diversified firm, Goold, Campbell and Alexander (1994) proposed the concept of parenting advantage and linked it with corporate success. Parenting advantage is a corporate parent's ability to manage a variety of businesses so that the value-added created by those businesses will be greater than the sum of what each can achieve individually and greater than what alternative corporate parents (the so-called rival parents) might be able to achieve. According to these authors, a corporate parent can add values to a diversified firm through four avenues. They are stand-alone influences, linkage influences (akin to synergistic sharing and joint development of resources and capabilities), central functional activities and services, and corporate development activities. For a corporate parent to maximize its useful contribution, there must be a match between parent characteristics and the characteristics of the diversified businesses within the company. Thus, core competence and parenting advantage become two important concepts useful for studying the evolution of internal resources and capabilities and their impact on performance in diversified firms.

In addition to emphasizing the importance of these two aspects in influencing the performance of multi-business firms, both sets of research recognize the evolving nature of the notion of core competence and parenting advantage. Prahalad and Hamel (1990) first referred to core competences as organizational learning and later developed the notion of a portfolio of competence development (1994). Specifically, after conceptualizing the relationship between core competence and core products, they suggest that firms maximize exposure of their core products by including both internal and external customers in order

to obtain the greatest amount of feedback that might, in turn, help further develop core competence. The model of parenting advantage created by Goold, Campbell and Alexander (1994), too, emphasizes the dynamic match through interactions between parent characteristics and the nature of the businesses the company operates over time as the external environment changes. Therefore, we suggest that both core competences and parenting advantage are important in enhancing performances of diversified firms, and these firms need to develop these two types of competences on an on-going basis and achieve a match between them in order to exert a positive influence on firm performance.

As repeatedly emphasized, essential processes for core competence identification, building, and leverage include close linkage and collaboration among business units, and the corporate parent's linkage influence, and uniform resource support (through resource allocation as well as central functions and services) for business units that share resources and competence together. Related diversification allows multiple businesses to share resources and core competence, and to jointly identify and develop core competences further. Moreover, related diversification dictates that corporate resources and support be provided to the collaborating businesses together in a consistent manner. On the other hand, internal capital market, labor market, and product market tend to emphasize competition, and may also benefit from a broad scope. Further, firms with a broader scope will be more capable to deal with institutional behavior uncertainty. Therefore, related diversification and associated organizational arrangements are uniquely positioned to deal with the challenge of resource building and leveraging, and at the same time are ill equipped to deal with institutional management tasks as the latter focuses on internal competition as well as social relations building.

Institutional explanation

The alignment between the environment and strategy has long been a central theme in the management literature (Astley and Van de Ven, 1983; Child, 1972; Courtney, 2001; Emery and Trist, 1965; Khanna and Palepu, 1997; Lengnick-Hall and Wolff, 1999). In much of the extant literature, the environmental aspects have been described in terms of industry structure, change and hostility. Empirical studies focusing on the institutional nature of the environment are exceptions to the rule. Various conceptual developments provide useful guidance. For example, scholars believe that optimal use of organizational resources can be carried out through deploying institutional capital (Miller and Shamsie, 1996; Oliver, 1997), while institutions may constrain or facilitate firm strategic initiatives (Hoskisson et al., 2000). As global economic integration proceeds at an unprecedented pace (Bryan et al., 1999), scholars began to probe how differing institutional factors might dictate strategy formulation under differing conditions (Aoki, 2000; Whitley, 1999). Khanna and Palepu, (1997) identified five factors in institutional environments: the product market, the capital market, the labor market, laws and regulations, and contract enforcement. As these authors argue, the lack of well-established product market, capital market and labor market in emerging economies, and the lack of government laws and regulations and inconsistent enforcement of contracts would make conglomerate companies a more effective form of business operation for such companies may be able to undertake tasks that otherwise should

have been accomplished by the institutional environment. The characteristics of the respective institutional environment now become an important consideration when evaluating the effectiveness of diversification strategies.

Incorporating the contribution of the institutional theory is then in order. Doing so would enable us to discuss the nature of the institutional environments more systematically and lead us to consider its impact on diversification strategy and resultant impact on firm performance. As defined, “(i)nstitutions consist of cognitive, normative, and regulative structures that provide stability and meaning to social behavior. Institutes are transported by various carriers—cultures, structures, and routines—and they operate at multiple levels of jurisdiction” (Scott, 1995:33). Institutions have three major pillars. The regulative pillar has to do with rule setting, monitoring and sanctioning activities. The normative pillar is a prescriptive, evaluative, and obligatory dimension. Finally, the cognitive pillar refers to the rules constituting the nature of reality and the frames through which meaning is conveyed (Scott, 1995).

When we consider the five major aspects believed to influence corporate scope decisions along the three pillars, it is apparent that their normative, cognitive, and regulative dimensions together would form a powerful force for firms to contend with. For example, it is not merely the lack of a labor market that would precipitate the establishment of an internal labor market and managerial on-the-job training. It is the lack of a labor market, together with the cognitive, normative, and regulative implications, that dictate such activities. Subsequently, the need for developing internal labor market, and on-the-job managerial training and practice will differ across countries due to institutional environment differences and will persist. Institutional forces thus would demand appropriate strategies from participant firms (Hennart, 1994; Oliver, 1997).

According to Khanna and Palepu (1997), the five critical aspects of the institutional environment have major implications for corporate strategy. They basically argued that developed economies already have institutional environments that would allow firms to compete without having to simultaneously struggle with serious institutional voids. In emerging economies, firms must also fill in those institutional voids in order to compete effectively. For example, without an adequate managerial training base, such as business schools, companies in emerging economies must develop their managers within the company through on-the-job training and internal labor market competition for promotion. Without proper capital markets, companies must develop internal capital markets through portfolios of businesses and use the market power of the whole company to secure external funding. Further, without an effective means to develop and protect brand names (due to the lack of product market), companies must leverage their well-known brands to market their less known products, and also select on a competitive basis more promising products to support.

By including the three pillars of institutional environment (Scott, 1995), we can now elaborate further how institutional environments will define and stabilize firm behavior, specifically, corporate strategies in our case. The cognitive pillar relates to frames through which meaning is made. Over time it provides external definitions of a firm’s behavior. For example, the US may have institutionalized competitive individualism in its market structure whereas Asian economies emphasize networks. Furthermore, firms, in order to

reduce uncertainty, may imitate others, yielding to the pressure of structural isomorphism. The normative pillar links with values and norms. It may identify responsibilities for social actors, including companies. There might be implicit rules companies should follow. Finally, the regulative pillar refers to rule setting, monitoring, and sanctioning. Institutions may use their regulative pillars to enforce conformation. These three pillars interact with and mutually reinforce one another. This coincides with the formal and informal arrangements in institutional environments proposed by North (1990), the former is essentially the regulative pillar while the latter combined the cognitive and normative pillars. The overall impact is governing and stabilizing the behavior of social actors. Thus, what was conceived simply as a level of institutional support can now be viewed from cognitive, normative, and regulatory angles.

Thus in emerging contexts, there exists market condition deficiency or the lack of well developed capital, labor, and product markets and institutional behavioral uncertainty or the lack of laws and regulations and inconsistent contract enforcement. These conditions, coupled with the reinforcing influence of institutional norms, dictate that firms develop strategic measures to respond to these challenges. Developing those measures are not only important for managing institutional voids but also important for conforming to institutional norms and gaining external support.

Corporations when confronted with these challenges must devise ways to manage their institutional environments effectively. A dual approach of (a) market internalization to deal with market condition deficiency and (b) social-exchange based uncertainty reduction to deal with institutional behavior uncertainty can be implemented through unrelated diversification. By creating internal capital markets, internal labor markets, and internal product markets, a corporation fills in institutional voids by internalizing key external institutes. These internal markets will function effectively if business entities competing for resources and support are autonomous (Hill, 1988), and if the internal markets resemble key market conditions of variety and choice (Li and Simerly, 1998; Porter, 1980). Unrelated diversification allows both while related diversification does not because the latter requires close coordination and consistency in management.

From a social-exchange lens, a corporation behaving in a responsible and consistent manner will elicit likewise responses from key stakeholders. A corporation engaged in a diverse range of business activities may be more able to influence its external stakeholders and elicit consistent responses from them. Furthermore, by responding in a proactive manner to critical concerns of key stakeholders (such as governmental agencies in China's case), a corporation may be able to secure consistent and favorable treatments from them as well. For example, governmental agencies may wish for businesses to acquire poorly performing businesses, and to ensure full employment of existing work force. Unrelated diversification is a likely direction for meeting these demands.

Therefore, both resource and institutional considerations are important when considering performance impact of diversification strategies in emerging economies. Furthermore, we suggest that related diversification is inherently positioned to identify, develop, and leverage resources while unrelated diversification is to internalize market institutes and manage institutional relations. In the next section, we will first consider the impact of each consideration on optimal corporate strategy and then elaborate on their joint impact.

Theory integration and hypothesis

The resource-based explanation favors concentration strategy and related diversification over unrelated diversification. Concentration strategy calls for the commitment to a particular product-market domain, and the development of its resources and competences in that particular domain (Pearce and Harvey, 1990). The resources and competences developed will thus become the basis for competitive advantage and will enable the firm to achieve better performance than its competitors. Top management in this case must identify a core business and influence its operation through effective leadership, strategic guidance, and resource allocation decisions. In related diversification, a corporation tries to develop resources and competences in several areas and share such resources among businesses. In this case, the core competence develops through corporate influence and collaboration among multiple units within the firm. The corporate headquarters' impact, i.e., parenting advantage, stems from multiple sources (Goold, Campbell and Alexander, 1994). The first one is stand-alone influence through managerial leadership, resource allocation decisions, and strategic planning and review. The second is linkage-influence through facilitating identification, building, and utilization of resources and competences across multiple business units. The third is central functions and activities. The corporate headquarters may perform certain central functions such as marketing and R&D to achieve economies of scale and to implement corporate vision. The last one is corporate development. Through strategic acquisition the headquarters may achieve stronger portfolios of core businesses and competences. Through supporting internal corporate venturing, the headquarters may also enhance the business portfolio. Related diversification therefore is directly linked to the identification, building, and leveraging of resources and competence. The interaction between parenting characteristics and heartland businesses is what enables a firm of related diversification to achieve better economic performance.

Given the insufficient support and uncertainty of the institutional environment, and the strength of regulative, normative, and cognitive dimensions, which reinforce the nature of the particular institutional environment, firms in emerging economies may need to engage in unrelated diversification to cope with the challenges in the environment. Through internal processes or internalization of key external institutes, firms may effectively undertake tasks that would otherwise be performed by external entities (Khanna and Palepu, 1997). For example, internal product certification, brand name leveraging, and internal quality assessment and control would provide much needed support in a poorly developed product market; on-the-job and executive training within a firm would in part substitute for the labor market; and internal capital market and the use of aggregate company group power to secure external funding would substitute for the financial market function. Furthermore, institutional relations management requires a firm to interact with a large collection of external entities. Again, unrelated diversification would provide a necessary platform to do so. Therefore, in emerging context, unrelated diversification, to a large extent, will enable a firm to perform better than others by performing institutional tasks and by conforming institutional norms so as to gain support from external forces (DiMaggio and Powell, 1983).

Thus far, the theoretical discussion and some preliminary empirical studies seem to suggest that both related and unrelated diversification would help firms perform better in

emerging economies (Bruton et al., 2000; Khanna and Palepu, 2000b; Khanna and Rivkin, 2001). We however must also turn our attention to another important issue, the potential for agency conflict and self-interested strategic behavior on the part of top managers once there exist separation of ownership and control, and information asymmetry.

In China's case, several factors contribute to even greater agency problems than those observed in developed economies. There exist multiple, and often mixed ownership types (Lu, 2000; Peng, 2000; Tan and Li, 1996). Corporate transparency is limited, and the capital market is still at an earlier stage of development. For state-owned enterprises, Chinese citizens are the owners, and company managers and governmental bureaucrats are the agents (Zhou and Wang, 2000). Ordinary citizens will have no effective means or motivation to monitor, to guide and to disciplinary these managers. For those firms that trade on the stock market, stockholders are the owners. Corporate transparency is limited; stockholder knowledge is yet to be developed. There exists a primitive case of separation of ownership and control that agency theorists focused on (Berle and Means, 1932; Eisenhardt, 1989; Fama and Jensen, 1983). Collective ownership represents a similar situation. Employees of the company, and/or local villages have ownership in a firm but their influence is limited as they cannot take their shares out and have little ability to influence firm management (Lu, 2000). Finally, joint ventures with foreign firms represent another form of separation. As already mentioned Chinese owners are separated from management. Geographic dispersion, cultural barriers and other similar obstacles separate foreign owners from these managers as well (Ramaswamy and Li, 2001).

Emphasizing only the resource-based explanation and therefore focusing on concentration and related diversification as the optimal corporate scope in emerging economies may be misleading, as there exist important institutional voids that companies must manage. Emphasizing only the institutional explanation and therefore focusing on unrelated diversification as the optimal corporate strategy may also be misleading since pure unrelated diversification may be value destroying if top managers have their own self-interest in mind when initiating such moves.

Given these considerations, it is important to conceptualize diversification as having two dimensions. One has to do with resource identification, building, and leveraging, while the other deals with institutional environment voids. For a study on the diversification and performance relationship in emerging contexts, it is important to integrate both considerations while keeping in mind the issue of agency problems. Using the rationales identified earlier, we propose the following basic proposition and develop it into a working hypothesis.

Proposition. *In emerging contexts, a match between levels of related diversification and unrelated diversification will lead to better firm performance.*

Here we have identified four scenarios. In the first scenario, a firm engaged in related diversification attempts to identify, build, and leverage resources among its multiple related units on the one hand, while pursuing unrelated diversification to cope with the challenges posed from the institutional environment on the other. In the second scenario, a firm engaged in a single business domain may concentrate on its resource building and use its resources and competence to compete only in that particular domain, reducing both demands for institutional supports and exposure to institutional behavior uncertainty. These two types of

firms appear to have achieved a match between their related and unrelated diversification strategic dimensions, as they are able to pursue both competence building and institutional environment management.

In the third scenario, firms that engage only in related diversification without an unrelated diversification component may experience difficulties due to institutional environmental conditions, and this may result in poor performance. Both theoretical reasoning and empirical evidence from studies in the developed economies may suggest that concentration strategy and related diversification strategy may be effective for firms to pursue. These conclusions assume a supportive institutional environment so net gains firms can obtain will be greater than the increased administrative and coordination cost that related diversification would require over concentration strategy. This however is not the case in emerging contexts. As repeatedly suggested before, there are both market condition deficiencies, and institutional behavior uncertainty in emerging economies. Because of market condition deficiencies, firms may not be able to secure favorable financing through external capital markets, receive support and protection from external product markets, and obtain managerial talents via external labor markets. Furthermore, by pursuing related diversification, firms expose themselves to greater institutional behavior uncertainty. These significant challenges will prevent firms from realizing any synergistic gains that related diversification might offer. We therefore believe pure related diversification strategy to be sub-optimal under emerging contexts.

Finally, firms that engage only in unrelated diversification fail to focus on a key requirement of business undertaking: internal resource development and leveraging. Their unrelated diversification effort may somehow help them deal with the institutional environment, but those benefits would not be translated into competitive advantages. The last two types of firms are therefore believed to have failed to match their related and unrelated diversification strategic dimensions. In both cases, companies will suffer from poor performance as a consequence. Translating the proposition above with the aid of the discussion that followed allows us to formulate this hypothesis:

Firms that engage in both related and unrelated diversification and firms that engage only in a single business domain will outperform those that engage in either related or unrelated diversification strategies.

3. Methods and results

Research setting

We have selected China as the research setting. China has made conscientious efforts to modernize its economy. In this process, its command economy has been gradually being replaced by a market-oriented economy. During this transition, diversification strategy has become common. At the same time, this strategy is accompanied by confusion and ambivalence in the business community. Some firms have diversified successfully while other firms diversified but failed miserably. Many factors force companies to diversify, such as governmental intervention and the need for financial resources. For example, Korea conglomerates

are believed to have prompted Haier to consider a conglomerate form of business practice (Economist, 1997).

Given the mix between the legacy of central planning and the context of the newly emerging market, China exhibits many of the institutional characteristics that Khanna and Palepu (1997) have identified. The lack of a product market still persists. Brand names are hard to develop and maintain. Imitating brands and outright fake products can easily destroy brand names and images. Consumers do not yet have reliable, independent sources of information to judge the quality of products. Capital markets have barely been established. Small investors are not well informed of the basics of investment. Many people prefer to put money into savings rather than invest it. Market discipline has yet to be created and enforced. Companies have yet to disclose accurate financial data to the public and investors. The labor market remains problematic. Despite efforts to establish educational programs in business, a critical mass of managerial talents has not been reached. Local consulting firms are slowly learning the tricks of the trade, while multinational mega-consulting houses orient themselves toward the local environment. Laws and regulations are still in the process of development, and many of them have to work through trial-and-error before a consistent system can be formed. Contract enforcement remains problematic as well.

These institutional characteristics are intertwined with the normative, cognitive, and regulative dimensions identified earlier. As such the Chinese economy is an ideal setting for a study of the diversification and performance relationship. Our findings will have a bearing on studies in other emerging economies and will contribute to the body of literature in this area while offering guidance to top managers.

Study sample and data collection

Collecting data on Chinese firms represents a major challenge. For a study of this nature, it is important that researchers have access to reasonably accurate financial data and segment information. As the Chinese firms gradually accept business practices such as competition and uniform standards of accounting, the business environment in China will improve over time. Presently however, publicly available data sets may have been marred with various compromises, forcing researchers to consider various tradeoffs in selecting data sources. Given the need for reliable financial data and industry segment information, we obtained our data from the Worldscope database, which features about one hundred Chinese companies that are publicly traded. In so doing we made a choice in favor of data reliability over sample size. The financial statements of these firms have been audited by major international and domestic accounting firms. This external validation enhances data reliability. Our database was then composed of one hundred and six publicly traded Chinese firms. In general, the Worldscope database provides specific industry segments within which a firm is competing, segment sales and asset data when available, financial data over three years when available, and international sales and asset distribution when available. For the one hundred and six Chinese firms, complete financial data were available for the year 1996 at the time of this research. Since multiyear data exist only for a very small number of firms, we compiled a single-year data set for the financial measures used in this study. Industry segment data are available also for a limited number of firms. We therefore focused on the industry segment description and SIC codes for diversification measures.

In addition to the Worldscope database, we also consulted a database published by Wanfang (1997). This database features data for a large number of firms. It does not contain complete financial data but does provide a detailed list of the industry segments in which a firm is involved. Data were extracted from the Worldscope database. For industry segment information Wanfang database was consulted to complement the data obtained from the Worldscope database. Indicators related to corporate scope were stable over time when comparing between the Worldscope data (1996) with Wanfang data (1995).

Measurements

There are three sets of variables discussed below: the formation of diversification measures, performance measures, and other control variables.

Diversification. Significant efforts have been made over the years to develop measures of diversification, ranging from product counts or SIC based measures (Gedajlovic and Shapiro, 1998; Montgomery, 1982), categorical measures based on specialization, vertical and horizontal ratios (Rumelt, 1974), entropy (Jacquemin and Berry, 1979; Palepu, 1985), and Herfindahl indices (Herfindahl, 1950; Hill and Hansen, 1991), to categorical measures based on entropy index (Hoskisson et al., 1993). To some extent, these indicators all tap into the construct of diversification and each may have its unique place in research (Acar and Sankaran, 1999; Denis, Denis and Sarin, 1997; Gedajlovic and Shapiro, 1998; Hall and St John, 1994). Considerations of research objectives and data availability will come into play when developing measures for a specific study as well. Our research proposition suggests that firms in emerging economies need to create a match between their degree of diversification in related and unrelated areas. We therefore choose to use SIC counts as our measure of diversification. The lack of segment sales and revenue data in our data source is another practical consideration, but our selection of product count measures serves our research purpose effectively. Specifically, we created two SIC count measures. The first is a related SIC count (narrow spectrum diversification measure), which captures the number of four-digit SIC segments within the same major two digit SIC group a firm is engaged in. The second is an unrelated SIC count (broad spectrum diversification measure), which captures the number of two-digit groups a company is engaged in. Furthermore, we converted the SIC count measures into categorical measures. For the respective SIC count above, we assigned 0 for firms engaged only in one segment or group, and 1 for firms engaged in more than 1 segment (or group). It is believed that these two measures have adequately captured the related and unrelated dimensions in which this research is interested. We believe that by identifying the nature of related and unrelated diversification, we have captured the essence of a firm's strategic posture in terms of product market scope.

Performance. Scholars have long recognized the multidimensional nature of the performance construct. Any single index may fail to provide a reasonably comprehensive understanding of the impact of the constructs of interest (Chakravarthy, 1986). At the same time, as we are concerned about the performance impact of diversification strategy, profitability measures become highly relevant. Data source constraints have prevented us from

developing growth related variables, hence in this study we focused on profit measures. We have therefore constructed two return related measures. They are respectively the return on assets (ROA), and the return on invested capital (ROI). These are essential measures widely used in strategic management studies and, as such, provide a frame of reference when considering the findings. Note that while the strategy literature also employs return on equity (ROE) in various studies (Palepu, 1985), it however may not be a relevant measure in the case of Chinese firms. China only began in recent years to develop its capital market, accurate assessment of a firm's equity may be lacking, and furthermore many firms secure funds from lending institutions in the form of debt. We therefore excluded ROE from testing. Furthermore, we believe measures of assets and investments are more stable bases for comparison than sales revenue as the latter may be subject to considerable year-to-year fluctuation because of external environments and because of possible short term oriented managerial behavior that might especially be relevant in emerging contexts. This study therefore also excluded return on sales as a performance variable.

Control Variables. In addition to the key explanatory variables used to test hypotheses advanced in this study, we included several controls. These controls are critical for a properly specified model, and for rejecting alternative explanations of empirical results. First of all, we included capital structure or leverage, defined as debt divided by equity. The management literature has suggested that capital structure reflects influences from debt holders and shareholders and will have performance impact (Barton and Gordon, 1988; Donaldson and Lorsch, 1983; Li and Li, 1996). Secondly, we include firm size as a control variable. Size is measured as the log of total assets in our study. Using assets instead of the number of employees reduces the impact of inter-industry labor intensity differences. CEO duality is another control variable included in this study. It is apparent that CEO duality may enable top management to act with greater authority and managerial discretion on one hand (Hambrick and Finkelstein, 1987), but the lack of checks and balances may lead to potential agency problems (Fama and Jensen, 1983; Jensen and Meckling, 1976), on the other. As such, the impact of CEO duality is hardly clear-cut. Nevertheless, it is important to control for that in this study. The final control variable is cost of goods sold (CGS) divided by total sales. This measure represents the overall efficiency of the firm operation and should be controlled for when studying diversification and performance relationship. In addition, we introduced industry controls as well. More specifically, we identified two broad industries—industrial materials and industrial equipments, and included two dummy variables to represent these two industries. All other firms are in the base industry. We adopted this rather broad classification scheme due to the relatively small sample size of the study. First of all, a more detailed industry classification will result in small number of firms in each category. Secondly, introducing too many dummy variables will lead to sample size/variable ratio problems.

Testing approach

Our hypothesis states that the interaction between related diversification category and unrelated diversification would influence performance. Given the nature of the hypothesis, we

employed a multiple regression model with an interactive term. The interactive multiple regression model methodology has been considered effective for testing interactive relationships (Aiken and West, 1991; Blalock, 1965; Cohen and Cohen, 1983; Jaccard, Turrisi and Wan, 1990; Pedhazur, 1982). So, we included in the model both Broad Scope and Narrow Scope, and their interactive term Broad by Narrow. We also included in the equation those control variables identified earlier: size, leverage, CEO duality, and CGS by sales and two industry dummies (industry 1 for industrial materials and industry 2 for industrial equipments).

Statistical results

Prior to the statistical analyses, we evaluated our study samples and correlation matrix to make sure our data set satisfies basic statistical assumptions. First of all, our study sample is reasonably large for hypothesis testing. Secondly, the correlations among the independent variables have been tested, and they have confirmed that there is no problem of multicollinearity. In addition, we evaluated the firm distribution among four types of diversification types. In the sample, forty firms were pursuing concentration strategy, twenty-three firms were pursuing pure related diversification strategy, twenty-eight firms were pursuing pure unrelated diversification strategy, and fifteen firms were pursuing a combination of related and unrelated diversification strategies. The distribution among these types is quite balanced. We believe statistical conclusions obtained will not be tainted by dominance of any specific type. Table 1 summarizes the basic descriptive statistics and presents the intercorrelations for all variables used in the study. With these preliminary assessments, we proceeded with data analyses.

Table 2 summarizes the statistical models of two performance measures, ROA, and ROI, with related and unrelated diversification measures and their interaction as the hypothesis testing variables, together with four control variables as explained earlier.

The overall model statistics for ROA and ROI are significant ($F = 2.507$, $p = 0.013$; and $F = 1.911$, $p = 0.059$ respectively). For the ROA and ROI models, the interactive term between related and unrelated diversification is statistically significantly related to performance. The positive sign can be interpreted as reflecting the performance impact of the match between broad and narrow scopes of diversification.

Plots of the impact of two dimensions of diversification on performance provide insights as to the nature of the interaction. Figure 1 depicts the impact of related and unrelated diversification on performance. Higher performance is associated with a combination of lower related diversification and lower unrelated diversification (concentrated growth strategy), or a combination of higher related diversification and higher unrelated diversification (hybrid strategy). Lower performance is associated with a combination of lower related diversification and higher unrelated diversification (pure unrelated diversifiers) or a combination of higher related diversification and lower unrelated diversification (pure related diversifiers).

In addition to the hypothesis testing results identified earlier, the two models also revealed the negative impact of higher leverage on firm performance.

Table 1. Descriptive statistics and correlation matrix^a.

Variables	Mean	S.D.	Correlation coefficients																	
			1	2	3	4	5	6	7	8	9	10								
1. ROA	0.051	0.040	1.00																	
2. ROI	0.082	0.062	0.91	1.00																
3. Size	14.430	1.239	-0.23	-0.15	1.00															
4. CEO duality	0.425	0.497	0.01	-0.05	-0.08	1.00														
5. Leverage	0.178	0.277	-0.27	-0.30	0.34	-0.04	1.00													
6. CGS/Sales	0.671	0.181	-0.19	-0.07	-0.10	0.16	-0.03	1.00												
7. Broad	0.000	0.482	-0.01	-0.02	-0.10	-0.05	-0.08	-0.05	1.00											
8. Narrow	0.000	0.493	0.04	0.03	-0.10	-0.05	-0.02	-0.02	0.10	1.00										
9. <i>B</i> by <i>N</i>	-0.004	0.236	0.20	0.19	-0.02	0.04	-0.06	-0.06	0.11	-0.01	1.00									
10. Industry 1	0.198	0.401	-0.02	-0.10	0.02	0.10	0.07	0.16	0.16	0.12	0.07	1.00								
11. Industry 2	0.519	0.502	-0.09	-0.00	-0.15	0.06	-0.12	-0.12	0.30	-0.19	0.03	0.15	1.00							

^a $N = 106$; for absolute value of $r > 0.197$, $p < 0.05$, for absolute value of $r > 0.273$, $p < 0.01$.

Table 2. Regression results^a.

Independent variables	Regression models					
	ROA			ROI		
	<i>B</i>	β	<i>t</i>	<i>B</i>	β	<i>t</i>
Industry 1	-0.003	-0.035	-0.298	-0.022	-0.143	-1.177
Industry 2	-0.013	-0.158	-0.158	-0.019	-0.150	-1.172
Size	-0.005	-0.128	-1.263	-0.002	-0.037	-0.355
CGS/Sales	-0.043	-0.192	-1.803⁺	-0.017	-0.050	-0.459
Leverage	-0.034	-0.235	-2.318*	-0.065	-0.288	-2.785**
CEO duality	0.001	0.018	0.186	0.007	0.053	0.553
Unrelated diversification	-0.061	-0.727	-2.532*	-0.078	-0.601	-2.048*
Related diversification	-0.049	-0.596	-2.123*	0.063	-0.495	-1.722⁺
Related by unrelated	0.038	0.921	2.391*	0.049	0.771	1.957*
Constant	0.243		3.490**	0.151		1.616
R ²	0.192			0.153		
Adjusted R ²	0.115			0.073		
<i>F</i>	2.507* (df = 9, 104)			1.911 ⁺ (df = 9,104)		

^a*N* = 106; ⁺*p* < 0.10; **p* < 0.05; ***p* < 0.01; ****p* < 0.001.

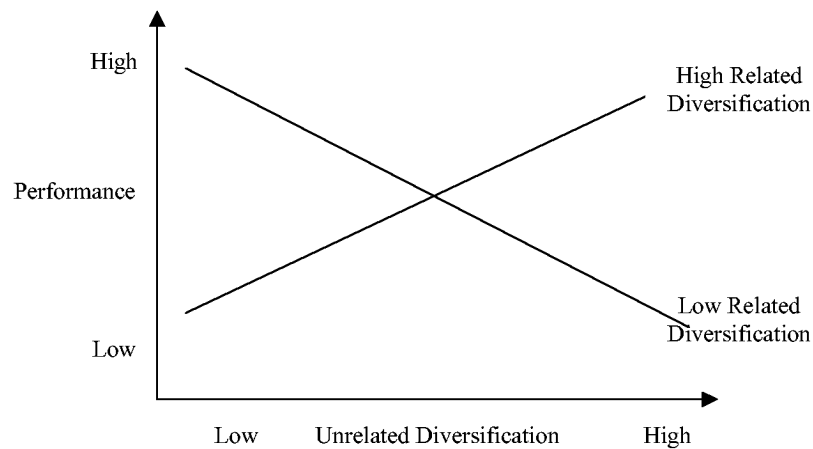


Figure 1. An illustration of the interactive impact of related and unrelated diversification on firm performance.

4. Conclusions and discussion

The relationship between diversification and performance remains a vital research topic because multi-business firms play a key role in the economic landscape (Goold, Campbell

and Alexander, 1994; Khanna and Rivkin, 2001), and we still have only very limited understanding of this linkage (Datta, Rajagopalan and Rasheed, 1991; Goold, Campbell and Alexander, 1994; Hoskisson and Hitt, 1990; Palich, Cardinal and Miller, 2000; Ramanujam and Varadarajan, 1989; Villalonga, 2000). Our topic draws all the more attention to this topic because much of the conceptualization and empirical study has been based on firms in developed economies, whereas mounting global economic integration makes it imperative that we broaden our scope of inquiry to include emerging economies as well.

This study represents a promising step forward toward that direction. By integrating resource and institutional explanations and testing empirically the proposed relationships on firms in China, the current study sheds light on the performance consequences of diversification strategies. It is suggested that matching between related and unrelated diversification strategies produces better economic performance in emerging economies than other strategies. We presented two pieces of empirical findings that are different from the received wisdom based on research in developed economies. First, our results indicate that pure related diversification may be a sub-optimal strategy for firms in emerging economies. We theorized unmet additional demands (administrative and coordination cost internally, and market conditions externally), and increased exposure to institutional behavior uncertainty associated with pure related diversification as rationales for this finding. Secondly, firms that pursue a hybrid strategy of combining both related diversification and unrelated diversification appear to gain performance benefit as well. We believe resource and competence building and institutional management are needed together to enable firms to compete more effectively in emerging contexts. Consistent with findings from those in the developed economies, concentration strategy seems to be effective (Pearce and Harvey, 1990), while pure unrelated diversification is value destroying (Hoskisson et al., 1993).

The theoretical approach and empirical testing reported in this study represent a useful contribution to the literature and a broadened understanding of the role of diversification strategy in emerging contexts. First, the results support the resource-based view. Concentration and related diversifications are useful strategic options. Exclusive reliance on resource explanation is however insufficient since effective firm strategy is contingent upon institutional environment. Firms may need to pursue unrelated diversification together with related diversification to overcome market condition deficiency, and to deal effectively with institutional behavior uncertainty. Second, in developed economies, the notion of business portfolio management has historically focused on the balance of growth (Buchanan and Sands, 1994; Goold and Luchs, 1993), whereas in the case of emerging economies, diversification emphasizes the balance between internal resources development to strengthen firm competency on the one hand and resources deployment to manage the external institutional environment on the other hand.

There are a number of limitations that must be considered. By focusing only on some very large firms in China's economy the findings of this study are not readily generalizable to other firms. Furthermore, most of these firms are located in regions of China where economic reform started earlier before other regions (such as Guangdong and Shanghai). It would certainly be fruitful research direction to include firms in other regions of China.

Limitations notwithstanding, this study highlights several important considerations when extending familiar research streams into new settings. Critical assessments of underlying

assumptions are extremely important. We integrated institutional environments into our theorizing of diversification performance relationship. Added demands of administrative and coordination costs, and external market support and protection coupled with increased exposure to greater institutional behavior uncertainty renders pure related diversification sub-optimal, and hybrid strategy effective. Likewise important theoretical underpinnings, notably resource-based view of firm, and agency theory, are still very much relevant for studying strategic behavior in emerging economies. Integrating multiple theoretical frameworks represents significant challenges that researchers must undertake if we are to increase our understanding of these strategic issues. Careful evaluations of study contexts, and comparisons of multiple settings are equally important as well. We assumed that the institutional environment in China is at an earlier stage of evolution towards becoming well established, and conducive to business activities. From an evolution perspective (Khanna and Rivkin, 2001) other emerging economies may be at different stages of evolution, and therefore the challenges of institutional environment management may be greater or weaker. Furthermore, importance of unique firm resources may vary depending on the overall stages of economic development, firms in some settings may rely more on generic resources to conduct businesses where in others unique resources and competences are critical.¹ Our study assumed both resource and competence building and institutional environment management to be important. When conducting multi-country studies, researchers may be able to derive different sets of hypotheses linking diversification with performance depending on the importance of each strategic task.

Combining the theoretical reasoning and empirical findings, we can offer several recommendations to managers in emerging economies. First of all, managers must assess the strategic necessities of resource building and leveraging, and those of institutional environment management together. Such assessments will become a key input for diversification decision. Secondly, diversification strategy requires effective management. The hybrid strategy requires significant on-going management for it requires both cooperation for resource and competence leverage as well as building, and competition for internal market effectiveness. Furthermore, these strategies demand a dual focus of competence building and institution management. Top management team composition must take this challenge into consideration.

Future research may pursue several important directions. A larger data set of Chinese firms over multiple years, and rich information regarding segment data and other performance variables will enable researchers to probe in greater detail the relationships hypothesized in this study. As more firms begin to be publicly traded and reporting procedures become more standardized, it is feasible to conduct more fine-grained studies in the future. Furthermore it is critical that research settings be expanded to include other emerging economies, such as Mexico and India. By conducting multi-country studies (e.g., Gedajlovic and Shapiro, 1998; Khanna and Rivkin, 2001; Lins and Servaes, 1999, 2002), researchers may be able to generate greater insights regarding the performance impact of diversification, variations in the importance of unique firm resources and institution management may become a useful framework to study systematic differences in diversification performance relations among different settings.

Note

1. We thank a referee for raising this point.

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