

Competitive strategy, capabilities and uncertainty in small and medium sized enterprises (SMEs) in China and the United States

John A. Parnell

*School of Humanities & Economic Management,
China University of Geosciences (Beijing), Beijing,
China and School of Business Administration,
University of North Carolina – Pembroke, Pembroke,
North Carolina, USA*

Zhang Long

*School of Humanities & Economic Management,
China University of Geosciences (Beijing), Beijing, China, and*

Don Lester

*Jennings. A. Jones College of Business, Middle Tennessee State University,
Murfreesboro, Tennessee, USA*

Abstract

Purpose – The purpose of this paper is to investigate linkages among competitive strategy, strategic capabilities, environmental uncertainty, and organizational performance in small and medium sized enterprises (SMEs) in China and the USA.

Design/methodology/approach – In China, a survey was administered to managers of SMEs in Shanghai and Guangzhou. In the USA, a survey was administered to managers of SMEs in three major cities. Competitive strategy, capabilities, uncertainty, and performance were measured by previously validated scales.

Findings – Findings support the integrity Miles and Snow generic strategic typology. Performance satisfaction was significantly lower in firms employing a reactor strategy as opposed to those employing prospector, defender, or analyzer strategies. Additional support was found for the concept of strategic clarity, as businesses reporting moderate strategic clarity had lower levels of satisfaction with performance than those reporting either a single strategy or a combination emphasis on three equal strategies.

Practical implications – Chinese SMEs tend to prefer cost-based approaches to their local markets. A differentiation market approach is challenging in most local Chinese economies due to the low wages of most jobs in an economy that is still largely centrally planned. In the USA, more disposable income leads to more market opportunities. While this situation is gradually changing in China, it is not at a point where SMEs feel comfortable pursuing totally differentiated strategies.

Originality/value – Several distinctions in competitive strategy, capabilities, and environmental uncertainty between China and the USA are recognized by analysis. Analyzers and defenders in Chinese SMEs tend to follow industry prospectors with lower prices and/or superior service. They might change strategies after gaining a foothold in the market. Performance for SMEs with low strategic clarity often depends on established guanxi with governmental agencies or stated-owned enterprises, a situation very different from that in the USA.

Keywords China, SMEs, Competitive strategy, Capabilities, Environment uncertainty

Paper type Research paper



Although much of the strategic management field is working with paradigms built around resources and capabilities, strategic group research continues to refine theory and test contingency models that emphasize fits among competitive strategy and other organizational and environmental constructs (Barth, 2003; Capps *et al.*, 2002; Leask and Parker, 2007; Parnell, 2013; Phelan *et al.*, 2002). Most published strategic group level research linking strategy and performance, however, has been performed in developed nations like the USA, while comparatively few studies in other nations have also considered factors such as capability development and strategic uncertainty (Parnell, 2008, 2010). Moreover, distinctions between large and small and medium sized enterprises (SMEs) are well documented in the literature, but the majority of strategy-performance studies have focussed on large enterprises (Ghobadian and O'Regan, 2006; Hoque, 2004).

Management research in emerging economies such as China has expanded in recent years (Ghobadian and O'Regan, 2006; Jusoh and Parnell, 2008; Tang *et al.*, 2007; Tracey and Phillips, 2011). The growing body of comparative work including China and other nations notwithstanding, a significant gap remains (Baglione and Zimmener, 2007; Gutierrez *et al.*, 2012; Wang, Hinrichs, Prieto and Howell, 2013). Compared with their large counterparts, many Chinese SMEs are young and struggling to survive. An estimated two-thirds of the 150,000 new SMEs in China each year do not survive the first year, and 85 percent do not survive ten years (Yang, 2000). Low survival rates for SMEs are a universal phenomenon underscoring the need for continued investigation into factors associated with success in both developed and emerging economies.

This paper addresses these gaps by assessing links among competitive strategy, strategic capabilities, uncertainty, and organizational performance in SMEs in two disparate nations, China and the USA. While the economies of both countries are at different stages of development, the comparison is compelling and insightful for several reasons. First, it informs SMEs in nations whose economies are in pre-China stages of development. Second, managers in Chinese SMEs can understand and interpret ongoing challenges and opportunities by reviewing the national comparisons. Finally, scholars can better understand both the benefits and the obstacles associated with the application of western generic strategy models in emerging nations with a stronger emphasis on central planning. As such, the remainder of the paper is divided into several parts, beginning with an overview of literature relevant to competitive strategies, SMEs, strategic capabilities, and strategic uncertainty.

Literature review

Competitive strategies and strategic groups

The notion of competitive or business-level strategy is best understood within the evolution of strategic management as a discipline and its roots in industrial organization (IO) economics. The IO perspective is built on the structure-conduct-performance model and emphasizes profitability as a primary function of industry structure. Many scholars have considered this three-part interaction more appropriate for industries with uncomplicated group structures, a high concentration of competitors, and relative homogeneity (Seth and Thomas, 1994), although some have noted IO's inability to explain large performance variances within a single industry. One prospective solution to this problem has been the strategic group level of analysis, a middle ground between the industry and firm levels (Porter, 1981). Strategic group research has addressed both domestic and global contexts (Garrigos-Simon *et al.*, 2005; Jusoh and Parnell, 2008;

Rugman and Verbeke, 2008; Spanos *et al.*, 2004), as well as content and process dimensions (Sorge and Brussig, 2003).

A strategic group is comprised of multiple businesses in an industry with substantial strategic commonalities (Kaplan, 2011). Scholars often compare groups in terms of performance and other factors (Cool and Dierickx, 1993). Many strategic management researchers have been frustrated by strategic groups' deterministic perspective rooted in IO, resulting in a consistent shift away from the industry level of analysis over the last two decades (Barney, 1991; Collis, 1991; Grant, 1991). Of particular importance has been the emergence of alternative paradigms – including the resource-based view and the dynamic capabilities perspective – that emphasize unique firm competencies and resources in strategy formulation rather than industry characteristics (Kim and Mahoney, 2005; Peteraf, 1993).

Business strategy typologies, developed and used as a theoretical basis for identifying strategic groups, are frameworks that define multiple generic competitive strategies available to business units (Zahra and Covin, 1993). Over time, many strategic group scholars have begun to work toward generalizability of typologies across industries. Generic typologies assume that strategic groups naturally emerge in any industry. One argument supporting their existence delineated by Dranove *et al.* (1998) stresses the need to separate group effects on performance from organization and industry effects. Some scholars have challenged this notion, however, on both conceptual and empirical grounds (Barney and Hoskisson, 1990).

Of the various strategic typologies that have been proposed, those of Porter (1980) and Miles and Snow (1978, 1986) have received the most initial scholarly attention (Veett *et al.*, 2009). It should be noted that others have since proposed various competitive typologies, some distinctive and others based on previously developed frameworks (see Garrigos-Simon *et al.*, 2005; Nwokah, 2008). Today, both Porter's and Miles and Snow's original typologies remain among the most widely cited, tested, and refined (Bowman, 2008; Veett *et al.*, 2009).

Porter (1980) categorized generic strategies with regard to cost leadership, differentiation of products or services, and focus on a niche market. Porter emphasized that organizations must emphasize either cost leadership or differentiation, with or without focus. According to Porter, businesses that attempt to combine cost leadership and differentiation typically become "stuck in the middle" (Porter, 1980, p. 41), a notion that received considerable early support (Dess and Davis, 1984; Hambrick, 1981; Hawes and Crittendon, 1984). Later studies questioned Porter's contention and even suggested that businesses adopting combination approaches – particularly those with a sophisticated alignment of supporting capabilities – might outperform their single strategy counterparts (Murray, 1988; Parnell, 1997, 2013; Wright, 1987).

The Miles and Snow (1978) generic strategy typology includes prospectors, defenders, analyzers, and reactors. Prospectors focus on innovation, creating new markets and enacting uncertain environments (Miles and Snow, 1986). Defenders emphasize cost control in stable environments, concentrating their innovative efforts on process issues. Analyzers build a firm foundation in efficiency but continue to pursue incremental innovation through flexibility. Reactors are late to change – often too late – and usually perform below the industry mean (Brunk, 2003).

Much of the early strategic group research was conducted in developed nations such as the USA and the UK. Strategic groups and generic strategies can be applied to industries in disparate countries as well, but the conceptualizations of strategy can vary across nations. For example, in ancient China, strategy referred to the tactics

required to win a battle or to pillaging by fighting, concepts similar to those espoused in Sun Tzu's, *The Art of War*. Over time, scholars and practitioners have viewed these tactics from a higher level more consistent with western connotations of business strategy (Yao, 2009). Today, it is common for stated-owned enterprises (SOEs) like Haier and Changhong to apply these principles in a coherent fashion, but SMEs often struggle to survive.

Strategy and performance in SMEs

Due to a general lack of business sophistication by owner/operators of many SMEs, specifying the relationship between competitive strategy and organizational performance has been difficult. Some trends have been identified, however. In the USA, most start-up firms employ a differentiation strategy for a niche market (Longenecker *et al.*, 2010), choosing to pursue existing markets in unique ways. When compared to large firms, SMEs tend to shun formal planning (Mintzberg, 1994). Lacking the years of analyzable data and experience available to large, stakeholder-oriented firms (Freeman and McVae, 2001), SMEs typically operate on limited resources. Aside from the focus orientation, SMEs tend to follow the same cost leadership-differentiation patterns as their larger rivals (Wolff and Pett, 2000).

SMEs attempting to attack broad markets with cost leadership or differentiation strategies encounter constant competition with large, established brands and firms, and typically encounter limited support from governments and financial institutions (Lv, 2008, Low and Cheng, 2006), a disadvantage particularly pervasive in China. Chinese SMEs often face high uncertainty in a variety of realms, making it difficult for them to pursue otherwise appropriate business strategies and enjoy the same level of performance as their larger counterparts. Hence, many choose a niche or focus approach – at least initially – but often fail to perform at desired levels (Chen, 2011).

Strategic capabilities

The notion of strategic capabilities emphasizes the uniqueness of each organization. Capabilities are generally scarce (i.e. different firms in an industry will not all have the same capabilities), relatively immobile (i.e. they are more useful to the possessing firm than to others), and not easily copied by competitors (Di Benedetto and Song, 2003). To be fully utilized, resources must be coupled with capabilities, complex bundles of skills and accumulated knowledge that enable organizations to coordinate activities and utilize their assets. The notion of strategic capabilities does not necessarily preclude the existence of strategic groups, as members of groups often share common resources and similar capabilities (Assudani, 2008; Day, 1994; Teece *et al.*, 1990). Indeed, a number of studies have suggested links between organizational capabilities and business strategies (Bowman and Ambrosini, 2003; Campbell-Hunt, 2000; Hoque, 2004; Hussey, 2002; Lopez, 2005; Pandza and Thorpe, 2009).

Internal strategic resources represent the core capability of SMEs (Pang, 2008) and can be subdivided into three categories, strategic mindset capability, strategic resource management capability, and organizational self-adaption and renovation capability. Finding, recognizing, and making use of opportunities to improve decision making comprises an organization's strategic mindset. Strategic managers are charged with the tasks of capturing and linking capabilities to strategic resources, and adapting to the changing external environment (Pang, 2008; Zhang, 2005).

The literature supports a relationship between strategic capabilities and performance (Ruiz-Ortega and García-Villaverde, 2007; Nadler and Tushman, 1997; Mitchell, 1991;

Shamsie *et al.*, 2004; Boulding and Christen, 2001). Bowman and Gatignon (1995) highlighted the positive influence of marketing and technical capabilities on early followers' performance. Iansiti and Clark (1994) emphasized integration capability in the automobile and computer industries and found that knowledge integration capability in product development correlated positively with firm performance and performance improvements over time. The development of various strategic capabilities is also believed to have a positive influence on business performance (DeSarbo *et al.*, 2005; Pandza and Thorpe, 2009; Wu, 2006; Zhu *et al.*, 2013). Research on capabilities in China has been limited, however (Kang and Ke, 2000; Xiaochong *et al.*, 2010).

Strategic uncertainty

Performance-based research emanates at the industry level and works downward toward strategic groups, while behavior-based studies tend to start with the organization and work upward toward strategic groups (Tywoniak *et al.*, 2007). This behavioral approach includes such phenomena as strategic uncertainty, a topic of keen importance for decades. Thompson (1967) viewed managing uncertainty as top management's primary challenge. Environmental uncertainty influences manufacturing and business strategies, which in turn influence business performance (Swamidass and Newell, 1987). Hence, in some respects, an organization's success is a function of its environment (Low and Cheng, 2006; Parnell *et al.*, 2012; Pelham, 1999).

Managerial perceptions are not always consistent, so a distinction between objective and subjective perspectives on environmental uncertainty is warranted. Because it is defined at the industry level, objective uncertainty suggests that all businesses in a given industry must address similar types and degrees of uncertainty. Conversely, identifying different levels for different businesses in the same industry invokes a subjective perspective.

Perceived environmental uncertainty (PEU) describes the extent to which a manager perceives the organization's environment as unpredictable (Milliken, 1987). PEU is widely viewed as a multidimensional construct (Boiral, 2005; Milliken, 1987; Pinske, 2007). Following Weick (1995), executives enact their own environments. Both perceived environmental (i.e. subjective) uncertainty and objective uncertainty appear to be distinct, related constructs (see Milliken, 1987).

From a Chinese perspective, Xu (2008) considered the management of uncertainty as one of the primary functions of entrepreneurs. As such, they should seek flexibility to avoid management rigidity and competitive stagnation. Gao and Tang (2010) argued that strategic uncertainty is the ultimate basis for potential threats and opportunities. Strategic uncertainty has a close relationship with the internal environment of SMEs, including the actions of competitors, the preference change of customers, and technical innovation.

Environmental complexity and dynamism can limit one's ability to assess the environment at any given time (Beal, 2000). It remains a critical issue in SME strategy research because it forms part of the interpretive basis on which strategies are formulated and implemented (Chong and Chong, 1997; Clemens *et al.*, 2008; Veett *et al.*, 2009). Organizations craft their strategies and attempt to shape the competitive environment as one means of addressing strategic uncertainty (Jauch and Kraft, 1986; Sun *et al.*, 2009). Comprehending the direction and scale of industry change is a key problem facing strategic managers (Mosalowski, 1997). Their choice of generic strategy can be viewed as the means by which they address uncertainty and competitive challenges.

How strategic managers respond to uncertainty varies by their personality and degree of risk aversion (Courtney *et al.*, 1997; Kaplan, 2008). Risk-averse managers may take a conservative approach to the market, such as developing new products that are compatible with existing ones, forming strategic alliances, or limiting investments in new ventures. Less risk-averse managers may seek out new ventures as a way of defining the uncertainty or simply pursue opportunities as if uncertainty were not an issue. Nonetheless, better information and certainty about the environment — *ceteris paribus* — tend to translate into superior performance.

Environmental uncertainty can be examined through three distinct continuums. The first is a simple to complex continuum that considers the number of external influencing factors. The second is a stable to unstable continuum, or the extent to which change is perceived to occur rapidly or slowly. The third views environmental uncertainty as a function of the quality or richness of information available to decision makers (Starbuck, 1976). Managers discover low levels of uncertainty in simple, stable environments where the quality of information gathered through scanning is high. In contrast, uncertainty is high in environments that are complex, unstable, and lacking high quality information (Duncan, 1972; Milliken, 1987; Weick, 1995). The type of uncertainty can impact organizational response strategies, including capability or strategic development (Lester and Parnell, 2007).

Performance of Chinese SMEs

China offers an interesting lens through which to evaluate SMEs, and more than 80 percent of enterprises could be classified as such (Yin, 2006). Like their counterparts in developed nations, the typical Chinese SME begins with an investment of <\$100,000. Most that survive perform marginally and are easily influenced in the short term by the external environment, competitive jolts, and product business cycles (Cao, 2007; Kong, 2002).

In many ways, SMEs in China are managed differently than those in other parts of the world. For example, Chinese executives tend to demonstrate high uncertainty avoidance relative to their American counterparts (Hofstede, 2003; Lockett, 1988). As such, security, stability, and predictability are highly valued in contemplating the direction of an organization. This is not to suggest that Chinese managers are unskilled strategic thinkers, but rather that they tend to prefer predictability and consistency when evaluating strategic opportunities. This uncertainty avoidance, coupled with the cultural emphasis on thrift and productivity, tends to translate into cost leadership strategies for many Chinese SMEs, whereas the American emphasis on uniqueness and individuality often engenders approaches based on differentiation and innovation (Merrilees and Miller, 1999; Wah, 2001). This viewpoint was also supported by the work of Xia and Xu (2006), who found that organizations with mature strategic planning efforts tended to emphasize traditional cost leadership and focus strategies.

Research on competitive strategies of Chinese SMEs has developed in recent years but remains limited and relatively unrefined. Findings are similar to those in western nations, but with some caveats. Pan and Lu (2005) found that tangible resources, especially the availability of capital, production efficiency, and employee qualifications and ethics are essential to the survival and development of Chinese SMEs. Intangible resources such as product quality and strength of the brand were also significant, while capabilities associated with flexibility were not as important (Luo *et al.*, 2009). Support from local governments has also been correlated with SME performance and is often viewed as a more pivotal influence in China than in the West (Yu and Duan, 2012).

Tang *et al.* (2007) investigated links among strategy, performance, and other variables in their assessment of construction SMEs in Tianjin. Performance links were found with a differentiation strategy and an emphasis on research and development, but not with product focus. Age of the enterprise was also a key contributing factor, reinforcing the notion that performance tends to improve for the minority of businesses able to survive their early years. It is noteworthy that Tang *et al.*'s (2007) findings rely on a sample from the construction industry, one that has garnered considerable government support in the last two decades. Indeed, entire cities in China have been speculatively built but are completely uninhabited due to a lack of consumer affordability. Construction firms of all sizes have flourished because of this government support, but such growth is likely unsustainable.

Zhu and Yao's (2007) assessment in China's Anhui province demonstrated that factors such as lagged local economic situation, unreasonable ownership structure, limited talent resource and information technology, and undeveloped social service systems resulted in slow development and low performance of local SMEs. Their recommendations were primarily at the macro level, suggesting larger investments in science and technology, more efficient and effective financing channels, cooperation among SMEs, and improved social service systems.

Scholarly advances notwithstanding, the underrepresentation of competitive strategy-performance research among SMEs in China can be attributed to several factors. Academic interest in strategic group studies piqued in the West before China's economy began to open in the 1980s. Bureaucratic factors complicate data collection in China as well. The superficiality and rigidity of Chinese business culture result in a limited emphasis on business ethics as well (Chen, 2007). However, there is also a key methodological consideration, the proclivity for imitation. This is especially pervasive in modern Chinese businesses and is due to the nation's highly homogenous market. SMEs often seek to reduce costs and follow their larger rivals, pursuing available niche markets without engaging in active strategic planning. In such circumstances, *guanxi* – personal relationships with obligations – plays a highly important role in the competition of homogenous markets (Liu, 2013).

Guanxi also seems to infiltrate the competitive strategy-performance link in China (Chengde *et al.*, 2013). Many SMEs do not have to have any active strategic planning but are competitive and profitable nonetheless because their owners have established intricate relationships with a SOE or government officials prior to starting their organizations (Liu, 2013). Some SMEs are established for a specific quasi-market purpose. They may simply wait for orders from contacts and elude competition in the traditional sense. Many SMEs attempt to establish these kinds of long-term relationships with SOEs or government entities. The successful ones tend to perform well even with little attention to strategy.

Brand is one of the major factors Chinese consumers consider when they make purchase decisions (Sun, 2011). It is challenging for young SMEs with limited capital to develop their brands quickly enough to garner sufficient support from consumers. They must undergo a considerable period of transition before being accepted by the market, leading many to choose a cost leadership approach instead. Those that succeed may shift to a prospector or analyzer approach later, innovating or modifying products in a differentiated manner (Hao, 2009).

In a recent study of organizational life cycle and performance from a sample of 600 US firms, high performers in the first two stages of the life cycle, normally smaller, leaner organizations, pursued first-mover or differentiation strategies over those

emphasizing low costs and efficiency (Lester *et al.*, 2008). Recent work has suggested that Chinese SMEs following prospector and analyzer strategies in concert with a high entrepreneurial orientation outperform defenders and reactors (Tang and Tang, 2012). Nonetheless, SMEs face a number of institution-based barriers in China, including a lack of a fair competitive environment, a murky and selectively enforced regulatory system, and limited access to financing (Zhu *et al.*, 2012).

After 30 years of reform and opening of commerce in China, executives of SMEs have been realizing the importance of strategic capability development. They have their own mindset and designs on how to develop the firm once they enter the growth phase of the life cycle. However, high uncertainty avoidance, unfavorable policy from governments and banks, and serious market competition highlight the need for short-term cash flow and survival and shift attention away from critical resources and develop capabilities. Compared with the general organizational life cycle mode in the West, Chinese SMEs tend to experience a much longer period in the development stage and a steeper growth stage if they survive, because it takes more time to gain useful resources, develop distribution channels, or vital *guanxi* at the outset. Once *guanxi* is accomplished with various government entities, SMEs can experience more rapid movement toward maturity, at which time top managers can begin to develop the firm into a larger, more sustainable enterprise. This can lead to a period of dormancy as firms develop the capabilities necessary to compete effectively as a multi-national enterprise (see Figure 1).

While many SMEs fail in various nations, the high failure rate in China is not difficult to understand. There are many uncertainties in China that complicate strategy, including information asymmetry in the market, abrupt and changing government policies, and difficulty accessing capital. Hence, it is no surprise that only a few Chinese SMEs – like their counterparts in many other nations – survive ten years.

Hypotheses

Six hypotheses are proposed herein. The first hypothesis considers the link between generic strategy and performance among SMEs, and is important as a foundation for the remaining hypotheses. Most published empirical work testing Miles and Snow's (1978) typologies has supported the integrity of the framework (Allen and Helms, 2006;

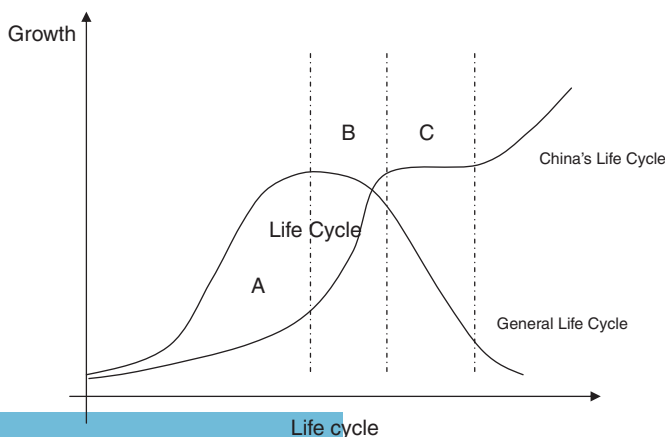


Figure 1.
SME Growth
and organizational
life cycle

Conant *et al.*, 1990; Moore, 2005; O'Regan and Ghobadian, 2006; Slater and Olson, 2001; Zajac and Shortell, 1990). Similar findings are anticipated in the present study:

H1. Managers in defender, prospector, and analyzer SMEs will report higher satisfaction with performance than managers in reactor SMEs.

The second hypothesis addresses the viability of the combination strategy *vis-à-vis* a single approach. Porter (1980) suggested that successful businesses pursue either cost leadership or differentiation, but not both simultaneously. Likewise, Miles and Snow (1978) suggested that organizations adopting a clear generic strategy (i.e. prospectors, defenders, and analyzers) typically outperform those without one (i.e. reactors). Most studies linking strategy along either typology with organizational performance are industry specific, and many suggest mediators or moderators in the strategy-performance nexus (Ghobadian and O'Regan, 2006). For example, cost leadership and combination strategies tend to result in higher SME performance in more concentrated markets in China, whereas differentiation tends to be more desirable in less concentrated markets (Li and Li, 2008). Hence, a combination strategy is neither more nor less effective *per se*, but its effectiveness depends on other factors

A key influence in the effectiveness of combination strategies is the notion of strategic clarity, the extent to which a business' efforts coalesce around a single generic strategy. Parnell (2010) found evidence supporting the existence of a *U*-shaped curve where performance appears to be highest at low and high levels of strategic clarity, and lowest at moderate levels. Support for the *U*-shaped curve has been found among SMEs in the USA, Peru and Argentina (Parnell, 2013), but research has not investigated this phenomenon among Chinese SMEs. A similar finding is anticipated herein:

H2. Businesses with high strategic clarity (i.e. a single, clear, preferred strategic orientation) or low strategic clarity (i.e. equal focus on three strategic orientations) will outperform those with moderate strategic clarity (i.e. two preferred orientations).

The third set of hypotheses addresses the link between strategic capabilities and business performance. Research investigating the direct link between capability development and performance has increased in recent years (Morgan *et al.*, 2009). Organizational capabilities represent superior, organization-specific aptitudes, skills, and technologies for resource deployment, allocation, and coordination (Wu *et al.*, 2010). As such, the existence of certain strategic capabilities, *ceteris paribus*, should lead to stronger performance. Support for such a linkage has been found in the fastener industry in China and Taiwan (Low and Cheng, 2006), but research assessing SMEs is needed. A similar finding is anticipated herein:

H3a. There will be a positive association between marketing capabilities and business performance among SMEs in both nations.

H3b. There will be a positive association between market linking capabilities and business performance among SMEs in both nations.

H3c. There will be a positive association between technology capabilities and business performance among SMEs in both nations.

H3d. There will be a positive association between management capabilities and business performance among SMEs in both nations.

The fourth set of hypotheses addresses the link between strategic uncertainty and business performance. Environmental uncertainty influences strategy formulation, which in turn influences business performance (Swamidass and Newell, 1987). In this respect, an organization's success depends on the organization's environment (Parnell *et al.*, 2012; Pelham, 1999). However, research linking uncertainty perceptions and performance has not always been clear (Hoque, 2004). Given the preference for high uncertainty avoidance among managers in China (Parnell *et al.*, 2012), a high level of uncertainty is likely to associate with relatively low performance in SMEs:

- H4a.* There will be a negative association between uncertainty about markets and business performance among SMEs in both nations.
- H4b.* There will be a negative association between uncertainty about technology and business performance among SMEs in both nations.
- H4c.* There will be a negative association between uncertainty about competitors and business performance among SMEs in both nations.

The fifth set of hypotheses concerns strategic capabilities with regard to marketing, market linking, technology, and management. Links between these capabilities and the generic strategies proposed by Miles and Snow are apparent. Defenders concentrate on ongoing strategic challenges rather than potential markets. They seek security in a relatively stable product or service area. Their product lines tend to be less broad than in other businesses, but they are not market and product development leaders. They are risk averse, preferring to follow successful rivals instead. In contrast, prospectors perceive a dynamic, uncertain environment and maintain flexibility. They more frequently identify and exploit new product and market opportunities, and often exploit changes in technology to achieve success, particularly in SMEs (Allen and Helms, 2006; Tan *et al.*, 2009). Analyzers stress both stability and flexibility and seek the benefits of both the prospector and defender types. They typically possess a working knowledge of competitors and technology, but not market forces that govern demand for their products and services. Analyzers usually let prospectors embark on new territories and then follow if market forces permit (Bantel and Osborn, 1995; Brunk, 2003).

Reactors represent the lone suboptimal strategic option with the Miles and Snow typology. They lack consistency and typically do not perform well in empirical tests (Moore, 2005; O'Regan and Ghobadian, 2006; Slater and Olson, 2001). Businesses pursuing a single, clear strategy will be more focussed in their pursuit of high performance and will tend to outperform reactors, *ceteris paribus*:

- H5a.* Defenders in each nation will report the highest level of market linking capabilities.
- H5b.* Prospectors in each nation will report the highest level of technology capabilities.
- H5c.* Analyzers in each nation will report the highest level of marketing capabilities.
- H5d.* Reactors in each nation will report the lowest level of management capabilities.

The final set of hypotheses concerns the link between environmental uncertainty and generic strategy. The present study invokes a perceived, enacted perspective. Emerging markets such as China are inherently uncertain (Peng, 2003; Peng *et al.*, 2008). Droege and Marvel (2009) found that SMEs in Viet Nam, China, and the Philippines perceiving high levels of environmental uncertainty tended to rely on emergent rather than deliberate strategies (Lester and Parnell, 2007; Mintzberg

and Waters, 1985). Chinese government policy for SMEs is limited and unpredictable, thereby increasing environmental uncertainty for SMEs (Lv, 2008; Chen and Wu, 2013).

Each strategy can be viewed as a means of reducing a particular type of uncertainty. Defenders minimize uncertainty in the competitive realm by operating in markets that are well developed. Prospectors attempt to leverage first mover advantages in technology and other arenas; they minimize technological uncertainty by leading its development. Analyzers depend on their understanding of markets and their ability to leverage opportunities created by successful prospectors. As such, analyzers should report low levels of market uncertainty (Allen and Helms, 2006; Tan *et al.*, 2009):

H6a. Defenders in each nation will report the lowest level of competitive uncertainty.

H6b. Prospectors in each nation will report the lowest level of technology uncertainty.

H6c. Analyzers in each nation will report the lowest level of market uncertainty.

Methods

Previously validated scales served as measures of the constructs investigated in this study. Businesses were categorized in the Miles and Snow typology via Zajac and Shortell's (1990) self-typing scale, as amended by James and Hatten (1995). A follow-up strategic clarity question assessed the extent to which respondents felt comfortable selecting only one of the strategies in the self-typing exercise (Parnell, 2010, 2013). Strategic capabilities were assessed within the context of four factors – marketing, market linking, technology and management – and were measured via scales developed and validated by DeSarbo *et al.* (2005). Environmental uncertainty was assessed within market, technological, and competitive realms, and also with scales developed by DeSarbo *et al.* (2005). A five-point Likert orientation was utilized (1 = strongly disagree to 5 = strongly agree).

Measuring organizational performance is a challenge. Indeed, what constitutes an effective strategy can depend on how performance is measured (Cavalieri *et al.*, 2007; Jusoh and Parnell, 2008; Pongtichat and Johnston, 2008). The measurement of organizational performance is widely debated, with some scholars suggesting that different measures are appropriate for different strategies (Hillman and Keim, 2001; Van der *et al.*, 2006). Quantitative measures are often utilized, but qualitative measures include subjective areas of performance such as satisfaction with financial returns, growth, and goal attainment. Hence, utilizing a qualitative approach can provide what may be lost when financial measures alone are employed (Ayadi *et al.*, 1996; Parnell *et al.*, 2006). In the present study, self-typing scales to assess relative competitive and objective performance were adopted from Ramanujam and Venkatraman (1987). This is particularly useful with young SMEs that might lack clear and consistent financial data on performance (Parnell, 2013).

This study sought to ascertain views on strategy, capabilities, uncertainty, and performance in SMEs. As such, only managers in organizations with fewer than 250 employees were surveyed. In China, the survey instrument was administered to managers of SMEs in Shanghai and Guangzhou, each of whom participated in a training seminar delivered in English. In the USA, the survey instrument was administered to managers of SMEs in three major cities. Convenience samples were utilized, resulting in demographic diversity in terms of management level, functional background, and industry background (see Table I).

Cross-cultural factors should always be scrutinized when scales validated in developed, western nations are applied to emerging, eastern economies. Difficult

Variable	USA (n = 176)		China (n = 166)	
<i>Management level</i>				
Lower	25	15.1%	26	14.8%
Middle	66	39.8%	88	50.0%
Upper	75	45.2%	62	35.2%
<i>Functional background</i>				
Accounting/finance	37	22.3%	43	22.4%
General management/HR	64	38.6%	40	22.7%
Marketing/sales	30	18.1%	32	18.2%
Production/engineering	28	16.9%	52	29.5%
Other	7	4.2%	9	5.1%
<i>Gender</i>				
Male	94	56.6%	103	58.5%
Female	72	43.4%	73	41.5%
<i>Industry</i>				
Manufacturing	58	34.9%	76	43.2%
Hospitality	42	25.3%	49	27.8%
Services	65	39.2%	51	29.0%
Other	1	0.6%	0	0.0%
<i>Firm size</i>				
Small (11-50 employees)	78	47.0%	33	18.8%
Medium (51-250 employees)	88	53.0%	143	81.3%

Table I.
Sample
characteristics

judgment calls are often required. The use of convenience samples can create analytical challenges with regard to identification of industry-specific influences, but results presented in Table I provide prima facie evidence that the samples were largely representative. Surveys were not translated into Chinese because the advantage of doing so was not deemed to be greater than potential differences in item interpretations due to translation difficulty.

Reliability was assessed for the performance satisfaction scale, the four capability scales, and the three uncertainty scales. Factor loadings and coefficient α 's were supportive (see Table II). Factor scores were computed and utilized as surrogates for each construct. A factor score of zero represents the industry mean, whereas positive and negative scores reflect group means above or below the means. A mean of positive or negative one reflects a value one standard deviation above or

Item	USA ($\alpha = 0.917$)	China ($\alpha = 0.863$)
1. Sales growth	0.695	0.692
2. Profit growth	0.571	0.748
3. Market share	0.814	0.717
4. Return on assets	0.877	0.658
5. Return on equity	0.808	0.772
6. Return on sales	0.860	0.669
7. Overall	0.874	0.715
8. Composite	0.870	0.754

Table II.
Factor analysis for
performance
satisfaction scale

below the overall mean, respectively. For example, a factor score greater than zero for one of the capabilities scales suggests that the SME in which the manager is employed has developed that particular capability more than other SMEs represented in the sample. Likewise, a factor score below zero suggests that the SME has not developed the capability as much as other SMEs in the sample (Tables III and IV).

Common method bias is always possible because one's assessment of uncertainty could influence or be influenced by one's assessment of performance on the same instrument. The performance scale was included near the end of the instrument to minimize any influence of performance responses on capability or uncertainty responses. Moreover, it utilized clear, specific anchors and is not likely to be influenced significantly by uncertainty responses. Although common method bias can never be eliminated completely, Harmon's single factor test was employed to test for its potential influence. Variance explained for one factor was 29.9 and 28.0 percent for the capability and uncertainty items, respectively, suggesting that common method bias was not a concern.

Findings

A summary of hypothesis tests is presented in Table V. The first hypothesis was supported in both nations. Performance satisfaction was significantly lower in reactors than in defenders, prospectors, and analyzers.

Item	USA	China
<i>Marketing capabilities</i>	($\alpha = 0.940$)	($\alpha = 0.769$)
1. Knowledge of customers	0.784	0.700
2. Knowledge of competitors	0.788	0.644
3. Integration of marketing activities	0.708	0.788
4. Skill to segment and target markets	0.790	0.619
5. Effectiveness of pricing programs	0.771	0.618
6. Effectiveness of advertising programs	0.781	0.708
<i>Market linking capabilities</i>	($\alpha = 0.881$)	($\alpha = 0.825$)
1. Market sensing	0.763	0.661
2. Customer linking	0.842	0.779
3. Creating durable supplier relationships	0.738	0.726
4. Ability to retain customers	0.801	0.792
5. Channel-bonding	0.752	0.782
6. Relationships with channel members	0.858	0.660
<i>Technology capabilities</i>	($\alpha = 0.929$)	($\alpha = 0.819$)
1. New product development	0.896	0.750
2. Manufacturing processes	0.831	0.771
3. Technology development	0.865	0.784
4. Predicting technological change	0.842	0.576
5. Production facilities	0.837	0.792
6. Quality control systems	0.886	0.674
<i>Management capabilities</i>	($\alpha = 0.887$)	($\alpha = 0.825$)
1. Integrated logistics systems	0.772	0.725
2. Cost control capabilities	0.797	0.772
3. Financial management skills	0.844	0.696
4. Human resource management	0.838	0.803
5. Profitability and revenue forecasting	0.839	0.759
6. Marketing planning process	0.703	0.627

Table III.
Factor analysis for
capability scales

Table IV.
Factor analysis for
uncertainty scales

Item (Abridged)	USA	China
<i>Uncertainty about markets</i>	($\alpha = 0.824$)	($\alpha = 0.831$)
1. Changes in customers' product preferences	0.750	0.713
2. Customers look for new products	0.829	0.693
3. Sensitivity to price	0.800	0.859
4. New customers different from existing ones	0.611	0.710
5. Cater to same customers (recoded)	0.631	0.778
6. Difficult to predict marketplace changes	0.755	0.676
<i>Uncertainty about technology</i>	($\alpha = 0.947$)	($\alpha = 0.858$)
1. Rapidly changing technology	0.887	0.800
2. Technological changes create big opportunities	0.894	0.791
3. Difficult to forecast technology	0.882	0.735
4. Technology creates new products	0.916	0.754
5. Technological changes are minor (recoded)	0.878	0.748
6. Technological changes are frequent	0.880	0.765
<i>Uncertainty about competitors</i>	($\alpha = 0.829$)	($\alpha = 0.777$)
1. Competition is cutthroat	0.744	0.677
2. Many promotion wars in the industry	0.739	0.749
3. One competitor can readily match another	0.722	0.578
4. Price competition is a hallmark	0.802	0.770
5. Competitive moves are frequent	0.731	0.592
6. Competitors are relatively weak (recoded)	0.677	0.752

The second hypothesis was supported. Businesses reporting moderate strategic clarity reported lower levels of satisfaction with performance than did businesses with a single clear strategy or with three equal strategies (see Table VI). The U-shaped performance curve reported by Parnell (2010, 2013) is confirmed among SMEs in both China and the USA in this study. Firm size – small or medium – did not appear to play a role in any of the performance differences.

H3a, H3b, H3c, and H3d were supported in both nations (see Table VII). Each of the capability factor scores was positively and significantly associated with performance satisfaction.

H4a, H4b, and H4c were rejected. There was only one significant association between a factor score and performance satisfaction, a positive link with uncertainty about markets in China.

Support for the third group of hypotheses was mixed. *H5a* was not supported in the USA, but was supported in China. In the USA, prospectors – not defenders – reported the greatest market linking capabilities, but the difference was not significant. In China, defenders reported the greatest market linking capabilities, as predicted (see Table VIII).

H5b was not supported in the USA, but was supported in China. Prospectors reported the greatest technology capabilities in both nations, but the difference was not significant in the USA.

H5c was not supported in the USA, but was supported in China. Analyzers reported the greatest marketing capabilities in both nations, but the difference was not significant in the USA.

H5d was supported in China but not in the USA. Reactors reported the lowest management capabilities in the China, but analyzers reported the lowest management capabilities in the USA.

Hypothesis	Support	
	USA	China
<i>H1</i> : Managers in defender, prospector, and analyzer businesses will report higher performance satisfaction than managers in reactor businesses.	Yes	Yes
<i>H2</i> : Businesses with high strategic clarity (i.e. a single, clear, preferred strategic orientation) or low strategic clarity (i.e. equal focus on three strategic orientations) will outperform those with moderate strategic clarity (i.e. two preferred orientations).	Yes	Yes
<i>H3a</i> : There will be a positive association between marketing capabilities and business performance among SMEs in both nations.	Yes	Yes
<i>H3b</i> : There will be a positive association between market linking capabilities and business performance among SMEs in both nations.	Yes	Yes
<i>H3c</i> : There will be a positive association between technology capabilities and business performance among SMEs in both nations.	Yes	Yes
<i>H3d</i> : There will be a positive association between management capabilities and business performance among SMEs in both nations.	Yes	Yes
<i>H4a</i> : There will be a negative association between uncertainty about markets and business performance among SMEs in both nations.	No	No
<i>H4b</i> : There will be a negative association between uncertainty about technology and business performance among SMEs in both nations.	No	No
<i>H4c</i> : There will be a negative association between uncertainty about technology and business performance among SMEs in both nations.	No	No
<i>H4d</i> : There will be a negative association between uncertainty about competitors and business performance among SMEs in both nations.	No	No
<i>H5a</i> : Defenders in each nation will report the highest level of market linking capabilities.	No	Yes
<i>H5b</i> : Prospectors in each nation will report the highest level of technology capabilities.	No	Yes
<i>H5c</i> : Analyzers in each nation will report the highest level of marketing capabilities.	No	Yes
<i>H5d</i> : Reactors in each nation will report the lowest level of management capabilities.	No	Yes
<i>H6a</i> : Defenders in each nation will report the lowest level of competitive uncertainty.	Yes	No
<i>H6b</i> : Prospectors in each nation will report the lowest level of technology uncertainty.	No	Yes
<i>H6c</i> : Analyzers in each nation will report the lowest level of market uncertainty.	No	No

Table V.
Summary of
hypothesis tests

Item	USA	China
<i>Strategy</i>		
Defender	0.023 (<i>n</i> = 38)	0.293 (<i>n</i> = 62)
Prospector	0.264 (<i>n</i> = 61)	-0.046 (<i>n</i> = 30)
Analyzer	-0.164 (<i>n</i> = 39)	0.019 (<i>n</i> = 62)
Reactor	-0.379 (<i>n</i> = 28)	-0.856 (<i>n</i> = 21)
<i>F</i> -value (significance)	3.247 (0.023)	7.744 (0.000)
<i>Combination strategy</i>		
3 Equal fits	0.467 (<i>n</i> = 23)	0.230 (<i>n</i> = 15)
2 Equal fits	-0.240 (<i>n</i> = 66)	-0.145 (<i>n</i> = 67)
1 Good fit and 1 partial fit	-0.101 (<i>n</i> = 52)	-0.105 (<i>n</i> = 52)
Only 1 good fit	0.416 (<i>n</i> = 25)	0.393 (<i>n</i> = 37)
<i>F</i> -value (significance)	4.883 (0.003)	2.899 (0.037)
<i>Firm size</i>		
Small (11-50 employees)	0.096 (<i>n</i> = 78)	0.050 (<i>n</i> = 34)
Medium (51-250 employees)	-0.086 (<i>n</i> = 88)	-0.012 (<i>n</i> = 141)
<i>F</i> -value (significance)	1.373 (0.243)	0.105 (0.746)

Table VI.
Analysis of variance
(ANOVA) for
performance
satisfaction
factor score

Support for the fourth group of hypotheses was also mixed. *H6a* was supported in the USA but was not supported in China. Defenders actually reported the greatest uncertainty about competitors in both nations, but the difference was only significant in the USA (see Table IX).

H6b was not supported in the USA but was supported in China. In the USA, defenders – not prospectors – reported the lowest amount of uncertainty about technology, although the difference was not significant. In China, prospectors reported the lowest amount of uncertainty about technology.

H6c was not supported in either nation. In the USA, analyzers reported the least uncertainty about markets, but the difference was not significant. In China, prospectors – not analyzers – reported the least uncertainty about markets.

Item	USA	China
Capabilities-marketing	0.276*	0.330*
Capabilities-market linking	0.200*	0.425*
Capabilities-technology	0.350*	0.255*
Capabilities-management	0.346*	0.589*
Uncertainty-marketing	0.125	0.181*
Uncertainty-technology	0.088	0.117
Uncertainty-competitors	0.105	-0.042

Note: *Significant at 0.05 level

Table VII.
Correlations with
performance
satisfaction

Item	USA	China
<i>Marketing capabilities</i>		
Defender	-0.203	-0.147
Prospector	0.039	0.196
Analyzer	0.137	0.202
Reactor	0.000	-0.454
F-value (significance)	0.796 (0.498)	3.254 (0.023)
<i>Market linking capabilities</i>		
Defender	-0.097	0.319
Prospector	0.271	-0.149
Analyzer	-0.125	-0.026
Reactor	-0.284	-0.646
F-value (significance)	2.643 (0.051)	5.691 (0.001)
<i>Technology capabilities</i>		
Defender	-0.198	0.203
Prospector	0.133	0.319
Analyzer	-0.081	-0.156
Reactor	0.092	-0.610
F-value (significance)	1.025 (0.383)	5.395 (0.001)
<i>Management capabilities</i>		
Defender	0.177	0.307
Prospector	0.241	-0.125
Analyzer	-0.534	0.020
Reactor	-0.167	-0.781
F-value (significance)	4.931 (0.003)	7.050 (0.000)

Table VIII.
Analysis of variance
(ANOVA) for
strategic capability
factor scores

MD 53,2	Item	USA	China
418	<i>Uncertainty about markets</i>		
	Defender	0.081	0.170
	Prospector	0.047	-0.595
	Analyzer	-0.212	0.076
	Reactor	0.082	0.151
	<i>F</i> -value (significance)	0.777 (0.508)	4.541 (0.003)
	<i>Uncertainty about technology</i>		
	Defender	-0.295	0.028
	Prospector	0.080	-0.549
	Analyzer	0.049	0.041
	Reactor	0.158	0.607
	<i>F</i> -value (significance)	1.514 (0.213)	6.262 (0.000)
	<i>Uncertainty about competitors</i>		
	Defender	-0.420	-0.167
	Prospector	0.281	0.108
	Analyzer	-0.236	0.013
	Reactor	0.287	0.295
	<i>F</i> -value (significance)	5.788 (0.001)	1.312 (0.272)

Table IX.
Analysis of variance
(ANOVA)
for uncertainty
factor scores

Discussion

Results lend general support to the integrity of the Miles and Snow typology in both nations. Moreover, they suggest support for a general link between a manager's PEU and the generic strategy employed by the organization. The *U*-shaped strategic clarity curve supports previous findings (Parnell, 2013). As expected, businesses with high strategic clarity (i.e. those whose managers were confident in selecting a single generic strategy) performed well. The executives of these firms have clear goals, and understand their businesses, resources, and competitors very well. However, businesses represented by respondents who found it difficult to select a single strategy from among three options also performed well. Indeed, a Chinese proverb states that it is easier for a small boat to make a *U*-turn.

Findings concerning uncertainty and capabilities remain somewhat elusive. An argument could be made that the uncertainty-strategy nexus is tautological, at least to some extent. The logic underpinning the influence of uncertainty on strategy has already been advanced herein, but the business strategy selected by an organization could influence the strategic uncertainty perceived by its managers for two reasons. First, managers in businesses employing a certain generic strategy might tend to perceive greater uncertainty in a given domain. For example, managers in defender organizations might reason that competitive uncertainty is by definition high, a fact that justifies the strategy selected by the organization. Second, if a strategy is designed to minimize negative repercussions of uncertainty in a particular area, then the organization might not allocate sufficient time, energy, or resources to reduce that uncertainty in the future. In this regard, the business strategy is selected as a means of managing the uncertainty.

Several distinctions between China and the USA should be noted. Concerning *H1*, among Chinese SMEs, analyzers and defenders tend to follow industry prospectors with lower prices and/or superior service. Once they gain a foothold in the market, they might change strategies as depicted in part C of Figure 1. Reactors lack a clear strategy from the outset and struggle to survive.

Concerning *H2*, performance for SMEs with low strategic clarity often depends on established *guanxi* with governmental agencies or SOEs. Such businesses lack a competitive strategy per se, but instead seek success through nonmarket means. With heightened regulations in many nations, increasing political influence, greater emphasis on government-business partnerships, and the rapid development of emerging markets, the notion of nonmarket strategy is now widely viewed as a key component of a firm's overall strategic orientation (Doh *et al.*, 2012; Henisz and Zelner, 2012; Kingsley *et al.*, 2012; Sawant, 2012). Activities, such as forms of collusion with competitors, lobbying legislators, and negotiating with regulators, are more subtle and prevalent in emerging economies that lack appropriate legal frameworks and infrastructure (Barron, 2010; Holburn and Vanden Bergh, 2008; Vázquez-Maguirre and Hartmann, 2013). If *guanxi* is lost, these SMEs must locate another distribution channel or they will disappear from the market. In contrast, SMEs with high strategic clarity have goal clarity and a stable foundation, but tend to experience a period of dormancy (see Figure 1, part B). Those with moderate strategic clarity have likely developed neither *guanxi* nor market share, and are struggling to survive.

The *H3* results confirm current research streams that emphasize the importance of capabilities in competitive environments. For SMEs in any country, effective and appropriate bundling of resources to create capabilities can lead to above-normal profits. The technological advancements of the past two decades have increased both the number of competitors and the competitive intensity so that SMEs are no longer shielded from larger or even foreign competitors. For example, buyers can touch a screen for almost any need; thriving and technology-savvy SMEs possess superior capabilities in this regard and can meet customers' needs more effectively. While the large population of China presents unlimited potential, many markets are still served locally, with customers learning more about what constitutes value. In the USA, many retail SMEs have struggled *vis-à-vis* online and big-box competitors, in addition to foreign firms providing more attractive options for wholesale and retail purchasers.

The rejection of *H4* is noteworthy. Recent economic growth sparked by the expansion of the middle class and the relaxation of some governmental restrictions has created opportunities for Chinese SMEs. While managers often perceive the environment to be uncertain, the net effect of these changes has been positive. In the USA, SME owner/operators are comfortable with a stable customer base and only gradually changing market conditions. Uncertainty for small business owners is a way of life, and many have learned to address it by growing and shrinking their operations to fit the circumstances.

Concerning *H5*, marketing efforts among SMEs in USA tend to be more sophisticated than those among their counterparts in China. While prospectors are willing to innovate and develop new product technology, prior research on organizational life cycle (Lester *et al.*, 2003) demonstrated that information processing sophistication was the strongest indicator of life cycle stage. Hence, while a percentage of SMEs are clearly pursuing a prospector strategy relying on new technology, many begin with an imitator focus relying on proven existing technology, choosing to grow more innovative and sophisticated as the business matures. *H5b's* findings indicate a greater degree of importance for Chinese SME prospectors to operate with advanced technological capability to be successful in their local markets, as compared to their counterparts in the USA.

Defenders tend to maintain a stable market share but focus on a single niche without regard to the rest of the market. Technology innovation for defenders is concentrated on business processes rather than products. Defenders in China reported a higher level

of market linking capabilities, reflecting the importance in local Chinese markets of securing stable customers and controlling market segments over the long term.

H5c was also supported in China but not in the USA. Marketing capabilities are central for Chinese SMEs attempting to executive a strategy anchored in both cost leadership and incremental innovation. Concerning *H5d*, reactors lack market share and capital, and are seeking a means of extending the life cycle. The lack of support for *H5d* in the USA may be attributed to the all-consuming culture of internal politics that develops in reactor organizations where individual managers focus on personal gain and power to the detriment of organizational performance (Mintzberg, 1984). Managers of reactor businesses might view their organizations as lacking capabilities due to the difficulty of surviving in such a competitive internal culture.

The findings concerning *H6a*, *H6b*, and *H6c* reflect the competitive environments within both countries. For example, sophisticated defenders in the USA have often employed the strategy over an extended period of time, providing ample opportunities to fully understand local competitive markets. In China, however, many new firms pursue a defender approach without such expertise, while prospectors are viewed as technological leaders, reflecting a low level of technological uncertainty.

This finding lends support to the idea that some businesses may be able to successfully deploy a combination strategy that incorporates facets from two or more generic strategies, while others invariably end up “stuck in the middle” (Porter, 1980, p. 41). Porter viewed this inevitability as a necessary short-term tradeoff between low costs and differentiation in his framework (see Fjeldstad and Haanaes, 2001). In a similar vein, success in a single pure strategy can also lead to a simultaneous pursuit of the other. High performance attained from either a defender or a prospector approach may increase an SME’s slack resources and permit it to pursue the adoption of the other approach (Dess and Davis, 1984). In addition, effective organizations are constantly discovering and implementing means of prospecting for new markets and defending existing ones (Hawawini *et al.*, 2003; Parnell, 1997; Parnell and Wright, 1993).

Given the significant relationships between strategies and capabilities, capabilities and performance, and capabilities and uncertainties, managers should consider fits among capabilities and environment when formulating strategies for their firms. For example, they can emphasize market capabilities in times of market uncertainty, technological capabilities in times of technological uncertainty, and market linking capabilities in times of competitive uncertainty. Put another way, alignment among these variables appears to be more important than strategy content alone. Of course, regardless of strategy employed, organizations should improve their market capabilities. It should be highlighted that the present study was carried out in a developing country, and problems experienced in such nations can influence appropriate strategies. While developing countries often represent attractive markets, their environments are riskier and fundamentally different from developed ones (Bandoyopahyay, 2001). They lack many of the essential resources, infrastructures, demand features, governmental controls, and stability that are present in developed economies (Baack and Boggs, 2008). Hence, managers should formulate their strategies by thoroughly analyzing the relationships between capabilities and uncertainties.

Practical implications

Implications for managers of SMEs

The findings presented herein provide a number of practical implications. First, strategic clarity is of utmost importance. While it is possible to succeed with a

combination competitive strategy, SMEs seeking to employ such an approach should do so in an integrated fashion. Organizations without a clear, cohesive strategy – reactors per Miles and Snow (1978) and stuck-in-the-middle per Porter (1980) – are likely to perform poorly. For fragile SMEs, poor performance can easily lead to extinction.

Second, managers of SMEs should emphasize market positioning. In a highly competitive environment, strategic capabilities should be developed regardless of generic strategy. Many Chinese SMEs invoke a “small and all-inclusive” business approach, competing with or attempting to become the successors of large enterprises, thereby reducing the leverage of important capabilities (Li, 2003). For many Chinese SMEs, success can be found in a niche orientation and effective leveraging of key capital, marketing, management or technological resources.

Third, capability development in the marketing, market linking, technology, and management realms can help SMEs address some of the challenges associated with environmental uncertainty. The different economies of China and the USA present contrasting pictures of environmental uncertainty that occurs over time as an economy develops. The challenges differ somewhat across nations, but Chinese SMEs can benefit from an understanding of how US firms are coping with a more mature competitive environment.

Fourth, as business environments for SMEs become increasingly competitive, the need for improved capabilities is crucial. A Chinese proverb warns, “A good blacksmith needs to toughen himself up.” From an organizational perspective, this suggests that capability development can reduce the negative effects of strategic uncertainty. In an SME, this could result from the addition of one individual or a single new product or service. A major weakness of many SMEs is a lack of training, both formal and informal. SME owners should avail themselves of outside training assistance so that their employees remain current with regard to technology and are able to address shifts in the environment. A reflection of this phenomenon can be seen through the procurement of social media coordinators and online sales staff in SMEs in the USA.

Fifth, environmental uncertainty in China creates both threats and opportunities for SMEs. Traditionally, Chinese managers have feared uncertainty and sought a stable environment and clear information before making any strategic commitments. However, uncertainty can also create opportunities for organizations prepared to seize them. SMEs able to negotiate new regulations, fill emerging niches, or meet new market demand could grow rapidly. Indeed, the Chinese environment is presently fraught with high uncertainty *vis-à-vis* government oversight, the availability of financing, and consumer demand shifts. International firms can often utilize extra resources to weather the uncertainty, but domestic SMEs may possess superior *guanxi* and local market knowledge. In the USA, environments are typically more stable and change more gradually, but they change, nonetheless. Improved training and environmental scanning techniques have been competitive weapons for SMEs for decades (see Aguilar, 1967).

Conclusions and future research directions

This study investigated linkages among competitive strategy, strategic capabilities, environmental uncertainty, and organizational performance in SMEs in China and the USA. Managers in businesses reporting moderate strategic clarity reported lower levels of satisfaction with performance than those reporting either a single strategy or three equal strategies. Key differences in capabilities and strategic uncertainty were also identified.

Chinese SMEs tend to prefer cost-based approaches to their local markets. The growth of the Chinese economy, while impressive, has been progressing for a long period of time, and most local patrons of small businesses are still fighting to achieve a middle-class income. A differentiation market approach is challenging in most local Chinese economies due to the low wages of most jobs in an economy that is still largely centrally planned.

In the USA, however, there has been a strong middle class presence for decades, primarily as a result of the free market approach taken by the government. With the standard of living much higher in the USA, differentiated products and services stand a substantially greater chance of success. More disposable income leads to more market opportunities. While this situation is gradually changing in China, managers in most SMEs hesitate to embrace differentiation.

Over time, however, too many small firms pursuing the same market strategy will lead to the early demise of a good number. Perhaps overreliance on uncertainty avoidance contributes to performance problems in many Chinese SMEs. Innovation efforts require risk and investment, and Chinese firms have tended to prefer a cautious, cost-controlling approach to serving local markets. It is this conservative, perceived safe reliance on a cost-based strategy that leaves firms vulnerable to new competition.

A number of opportunities for additional research have been identified. First, this study could be replicated in other nations, including emerging and disparate economies such as India, Mexico, and Brazil. Without additional research, the generalizability of the present findings remains tenuous.

Second, one must acknowledge the problems that arise when constructs and surveys are employed in different cultures (Punnett and Shenkar, 1994). Survey research tends to be less reliable with there are substantial educational, economic, cultural, or language barriers. It is desirable to maintain methodological consistency in cross-national research, but some Western management constructs – including the notions of strategic capabilities and uncertainty – may be interpreted differently elsewhere. Alternative culture-specific constructs may more accurately explain reality.

Finally, future studies could utilize different measures for the constructs of interest. Whereas the present study utilized self-report scales to measure capabilities and competitive strategies, future assessments could use financial data, reports in the business press, or expert analyses instead or in addition. Moreover, performance measured via accounting data can provide insight into links with capabilities, uncertainty, and competitive strategy (Cavalieri *et al.*, 2007; Jusoh and Parnell, 2008; Pongatchat and Johnston, 2008).

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Appendix. Strategy survey items

Miles and Snow Strategy (James and Hatten, 1995; based on Shortell and Zajac, 1990)

Which of the following paragraphs most closely describes the strategy of your business?

- A. We've attempted to locate and maintain a secure niche in a relatively stable product or service area. We've tried to offer a more limited range of products or services than our competitors and we've tried to protect our domain by offering higher quality and superior service. We may not be at the forefront of developments in the industry but have attempted to concentrate instead on doing the best job possible in our market.
- B. We've tried to operate within a broad product-market domain that undergoes periodic redefinition. We've wanted to be "first in" with new products and market areas even if not all of these efforts have proven to be highly profitable. We've tried to respond rapidly to early signals concerning areas of opportunity, and these responses have often led us to a new round competitive actions.

-
- C. We've attempted to maintain a stable, limited line of products or services, while at the same time have tried to move out quickly to follow a carefully selected set of the more promising new developments in the industry. We are seldom "first in" with new products or services but by carefully monitoring the actions of major competitors in areas compatible with our stable product-market base we try to be "second in" with a more cost-efficient product or service.
 - D. We've not been able to have a consistent product-market orientation. We have not been able to be as aggressive in maintaining established products and markets as have our competitors and we have not been able to take as many risks as they have. We have been forced to respond to environmental pressures.

Strategic Clarity (Parnell, 2010, 2013)

To what extent is your business following more than one of the first three options (A, B or C) in the previous question?

- A. A, B, and C seemed to fit our business almost equally. It was a difficult decision, but I selected the option I thought was the best choice.
- B. Two of the three choices among A, B, and C seemed to fit our business almost equally. It was a difficult decision, but I selected the option I thought was the best choice.
- C. It was not difficult to select the best choice among A, B, and C in the previous question, but at least one of the other two options partially fits our business.
- D. The choice I selected in the previous question is clearly the best description of our business. None of the other options would have provided even a partial fit.

Corresponding author

Professor Zhang Long can be contacted at: zhanglongdragon@hotmail.com

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