

Chapter 2

Theoretical Foundation and Literature Review

2.1 Introduction

The previous chapter presented an overview of the study. This chapter introduces the theories that underpin the study through a view of relevant literature. Therefore the chapter establishes the foundation from which the conceptual framework and research propositions are derived.

The chapter starts with introducing Resource-based View (RBV) and Dynamic Capability Approach (DCA) as the main theoretical foundation of the study. Key organisational resources and capabilities in RBV literature that are sources of competitive advantage are identified. Their importance on establishing business partnership is also discussed. Next, the important role of integrative capability and relational capabilities in achieving superior firm performance in business partnerships is discussed. Lastly, four important dynamic capabilities are identified. Their importance on firms' sustainable competitive advantage is discussed and their mediating role in the relationship between organisational resources, capabilities and firm performance is proposed.

Section I: Theoretical Foundation

2.2 The Pursuit of Competitive Advantage

Several studies investigating firm performance have drawn attention to the need for understanding the sources of sustainable competitive advantage. Such need is central to most firms' mission, and has become a major area of research in the field of strategic management. For instance, Devan et al. (2005) studied 266 firms during the period of 1984–2004, and found only a small number of firms were financially successful. Similarly, in a longitudinal study of 25 years with 672 firms across

40 industries, Wiggins and Ruefli (2002) found only a small portion of firms exhibited superior economic performance.

Michael Porter firstly introduced the concept of competitive advantage in the late 1970s (Porter 1979, 1980). The concept of competitive advantage is built on the premise that firms can develop a differential advantage over their competitors. Thus, competitive advantage is discussed from a competitive perspective in the literature (Barney 1991; Dierickx and Cool 1989; Hunt and Morgan 1995). Barney (1991, p. 102) described competitive advantage as a 'value creating' strategy. Hoffman (2000, p. 1) followed this definition and defined competitive advantage as the 'prolonged benefit of implementing some unique value-creating strategy not simultaneously being implemented by current or potential competitors along with the competitive inability to duplicate the benefits of this strategy'.

Achieving competitive advantage should be the objective of a firm's strategy with the outcome manifesting as above-average returns for the firm (Barney 1991; Grant 1991; Porter 1985). It is assumed that the desired outcomes of a firm's efforts in seeking a competitive advantage, such as superior performance, is sustainable and will not be easily eroded (Peteraf 1993). Slater (1996) claimed that if the foundation of competitive advantage is easily eroded, then the source of competitive advantage is not an advantage at all or at best is only for a short duration, thereby limiting its benefit. Therefore, in order for firms to earn above-normal profit, the competitive advantage must be sustainable (Barney 1991; Slater 1996).

Several models have been developed to explain ways to achieve competitive advantage. The dominant paradigm in this field during 1980s was the competitive forces model developed by Porter (1980). This model views the essence of competitive strategy formulation as relating a firm to its industrial environment in which it competes. In this model, five industry-level forces determine the profit potential of an industry, namely entry barriers, threat of substitution, bargaining power of buyers, bargaining power of suppliers, and rivalry among industry incumbents (Porter 1980). Followed by that, Shapiro (1989) proposed the strategic conflict model that is closely related to competitive forces model in terms of the focus on product market imperfections, entry deterrence, and strategic interaction. This model uses game theory and views competitive outcomes as a result of strategic organisation actions of manipulating the market environment (Shapiro 1989).

However, game plays do not result in success if the impact of idiosyncratic attributes on a firm's competitive position is disregarded (Barney 1991; Porter 1990). The above two models do not take into account that competition is a process involving the development, accumulation, combination, and protection of unique skills and capabilities (Barney 1991; Dierickx and Cool 1989; Rumelt 1991).

Instead of focusing on either isolating a firm's opportunities and threats (Porter 1980, 1985), describing its strengths and weaknesses (Hofer and Schendel 1978; Penrose 1959), or analysing how these are matched to formulate strategies, the Resource-Based View of the firm (RBV) pioneered by Barney (1991) embodies a different view, that stresses the internal aspects of a firm. The contribution of the RBV is that it advances the idea that 'a firm's competitive position is defined by a bundle of unique resources and relationships' (Rumelt 1984, p. 557). Thus, this

model proposes a more intimate integration of organisational and economic approach as a way to study sustained competitive advantage. With time, the RBV has emerged as the most influential theoretical framework for understanding how competitive advantage within firms is achieved and sustained over time (Crook et al. 2008; Hooley and Greenley 2007; Kraaijenbrink et al. 2010). This study adopts RBV as its theoretical foundation.

2.3 The Resource-Based View

Before the emergence of RBV, the importance of resources to a firm's competitive growth was firstly recognised by Penrose (1959). She contended that a firm consists of a collection of productive resources and its growth depends on the manner in which its resources are deployed. Following the early work in the emergence of RBV (Teece 1982; Wernerfelt 1984), Barney (1991) formalised a comprehensive theoretical framework from the resources based perspective. According to Barney (1991), firms can be conceptualised as bundles of resources (and capabilities) that are heterogeneously distributed among firms and are imperfectly mobile. The differences in resource endowments across firms over time, thereby allows for a resource-based competitive advantage.

The fundamental suggestion for organisational actions from this perspective is that firms select strategies to generate rents based upon their resource, capabilities and a fit with environment opportunities (Grant 1991; Hunt and Morgan 1995; Mahoney 1995). 'For the firm, resources and products are two sides of the same coin' indicates that firms can earn above normal returns by identifying and acquiring resources that are critical to develop market-demanded products (Wernerfelt 1984, p. 171). Therefore, firms seek to acquire and develop unique sets of resources and capabilities as a means to gain a better competitive position in the market.

Due to the difficulties in measuring competitive advantage (Ketchen et al. 2007), most studies that have empirically linked strategic resources and firm performance use the term competitive advantage as synonymous with firm performance (Crook et al. 2008). Competitive advantage is 'generally used to describe the relative performance of rivals in a given market environment' (Peteraf and Barney 2003, p. 313). Thus, the assumption is if strategic resources are related to superior performance, then a competitive advantage must exist.

The RBV emphasises the performance implication of strategic resources that are available to the firm (Amit and Schoemaker 1993; Hunt and Morgan 1995; Peteraf 1993). However, not all resources are strategically important for competitive advantage (Barney 1991). The VRIN attributes (valuable, rare, inimitable, and non-substitutable) of strategic resources proposed Barney (1991) are fundamental and prominent. The resources must be valuable to enable a firm to conceive or implement strategies that improve its effectiveness and efficiency. If resources are rare, the firm can implement a unique value-creating strategy among its current and potential competitors. Furthermore, the resources must be difficult to replicate,

imitate, or substitute for competitors to sustain the advantages gained in the value-creating strategies. Lastly, imperfect mobility refers to the non-tradability and barriers to move certain resources from one firm to another, further enhancing the sustainability of these advantages (Barney 1991; Mahoney 1995). Similar attributes of strategic resources can be found in other studies (Amit and Schoemaker 1993; Grant 1991; Schoemaker and Amit 1994).

Lippman and Rumelt (1982) introduced the concept of causal ambiguity, or the lack of transparency of organisational resources that is significant for producing competitive advantage. Causal ambiguity makes the connection between resources and competitive advantage less clear, and thus effectively constrains the ability of competitors to imitate and/or to employ substitutes. The tacitness, complexity and specificity of resources generate causal ambiguity (Dierickx and Cool 1989). In conclusion, the key to inhibit competitors' ability to obtain or duplicate the competitive advantage exists in the characteristics of organisational resources, namely valuable, rare, imperfectly imitable and causal ambiguous.

The RBV has emerged as one of the most widely accepted theoretical perspectives and a large number of studies adopting RBV has rapidly diffused throughout the strategy literature (Crook et al. 2008; Priem and Butler 2001a). Researchers have begun to analyse the cumulative results for validating the applicability of RBV. Perhaps the three most prominent assessments are Barney and Arikan (2001), Newbert (2007) and Crook et al. (2008).

Barney and Arikan (2001) assessed the studies adopting RBV using a qualitative method and concluded that the overall results are consistent with resource-based expectations. By calculating the percentage of significance tests supporting the notion that strategic resources shape performance, Newbert (2007) has received only modest support overall. This approach has some important limitations (Crook et al. 2008), including not considering statistical artefacts and significant level of the supporting effects. To overcome these limitations, Crook et al. (2008) used meta-analysis to study 125 RBV-related research and found RBV's empirical base offers strong support for the assertion that firm performance is enhanced to the extent that they possess strategic resources.

2.3.1 Limitations of RBV

Despite its popularity, the RBV faces several theoretical and practical challenges. One of the primary critiques of the RBV over time is its static nature (Lockett et al. 2009; Newbert 2007), as it is stated in Priem and Butler (2001b, p. 33) that 'much of the subsequent literature has been static in concept'. Barney (2001a, p. 33) noted that 'the processes through which particular resources provide competitive advantage remain in a black box' in RBV theory. The mechanisms to explain the linkage between resources and performance in product markets are not well-identified (Coff 1999; Ketchen et al. 2007; Mosakowski and McKelvey 1997; Williamson 1999). Zahra and George (2002) also argued that the RBV is a retrospective tool which

gives management little practical use, because it is not able to explain the evolutionary nature of resources.

Particularly, the RBV has not well explained how and why certain firms have competitive advantage in situations of rapid and unpredictable changes (Eisenhardt and Martin 2000). Winners nowadays are based on their timely responsiveness, rapid and flexible innovation, as well as the capabilities to effectively coordinate and redeploy the internal and external competences (Teece et al. 1997). It has been noted that accumulating valuable assets is often not enough to support a sustainable competitive advantage in the changing global markets (Barney and Arikan 2001; Mahoney 1995; Priem and Butler 2001b). Resources are context based; their values depend on the characteristics of the given environment. Because resources are relatively stickier than their environment, the changes and adaptations of resources often lag behind the environmental changes (Teece et al. 1997). Therefore, in rapidly changing context, a dominant focus on core resources may create core rigidities that are the resources which used to be valuable but have become obsolete because they have not been appropriately adapted, upgraded or restructured in responding to the new environment (Zhou and Li 2010).

From a practical perspective, Priem and Butler (2001a) argued that the RBV does not meet the operational validity criterion as the value of resources dramatically changes across markets, and it is quite difficult for practitioners to measure and manipulate the resources especially the intangible ones. The resources that are likely to be of greatest importance are particularly complex, unobservable and difficult to measure (Lockett et al. 2009). Operational validity refers to the ability of the practitioners to 'implement the action implications of a theory by manipulating its causal (or independent) variables' (Thomas and Tymon 1982, p. 348). Moreover, Tsang (2000) questioned the RBV being terminological ambiguous as several RBV theorists use concepts such as resources, capabilities, and competencies, interchangeably or without theoretical standardisation. In a more recent work, Kraaijenbrink et al. (2010) cited eight types of criticisms on RBV, three of which are considered as serious challenges. The three criticisms refer to insufficient condition of VRIN resources to produce sustainable competitive advantage, all inclusive definition of resources, and the assumption that value of a resource is known in advance to all.

To sum up, the RBV has been criticised as being conceptually vague and tautological, lacking consideration of market dynamism, and with limited attention to the mechanisms by which resources are converted to competitive advantage (Eisenhardt and Martin 2000; Mosakowski and McKelvey 1997; Priem and Butler 2001b). Strategic resources contribute to performance only to the extent that organisations capture the economic value they create (Barney and Clark 2007). To enhance the RBV and extend the knowledge on achieving sustainable competitive advantage in fast changing environment, Dynamic Capability Approach (DCA) has been developed (Eisenhardt and Martin 2000; Helfat and Peteraf 2003; Teece et al. 1997).

DCA advocates have proposed that the mere existence of appropriate bundles of specific resources is insufficient to sustain competitive advantage in situations involving rapid and unpredictable market changes, as earlier noted by Teece et al. (1990, p. 11)

‘our view of the firm is somewhat richer than the standard resource-based view...it is not only the bundle of resources that matter, but the mechanisms by which firms learn and accumulate new skills and capabilities, and the forces that limit the rate and direction of this process.’

2.4 Dynamic Capability Approach

The DCA proposes that the traditional elements of business success in previous models—maintaining incentive alignment, owning tangible assets, controlling costs, maintaining quality, optimising inventories—are necessary but not sufficient for sustained superior performance in changing environments (Helfat et al. 2007; Teece 2007). The real sources of a sustainable competitive advantage are dynamic capabilities, which ‘integrate, build, and reconfigure internal and external competencies to address rapidly changing environments’ (Teece et al. 1997). Dynamic capabilities lie at the core of organisational success (and failure). Even when a firm possesses VRIN resources but does not deploy dynamic capabilities, the firm’s superior returns may be short lived if and when the environment changes (Wu 2010). Thus, dynamic capabilities enable firms to continually maintain competitive advantage by adapting and refreshing their resource base, thereby helping firms avoid development of core rigidities that inhibit development and result in innovation inertia (Ambrosini and Bowman 2009; Pitelis and Teece 2009). It is noted in Collis (1994, p. 148) that ‘the capability that wins tomorrow is the capability to develop the capability to develop the capability that innovates faster (or better), and so on.’

Central to the survival and prosperity of firms under such environment is the ability to not only exploit existing assets and improve efficiency in a profit producing way, but also explore new technologies and markets; not only to deploy existing opportunities, but also to reconfigure resources and prepare to address and adapt to emerging threats and opportunities (O’Reilly and Tushman 2007).

For example, IBM pursued a resource-based strategy of accumulating technological assets and frequently adopting an aggressive intellectual property stance to protect its interests. But its personal computer division (PCD) did not match with the market needs. As a result, the Chinese computer manufacturer Lenovo Group, Ltd. completed its \$1.8 billion purchase of IBM’s PCD in May 2005. Lenovo was established in 1984 in a bungalow at Beijing. With its advanced technology and fast adaptability to market needs, Lenovo is currently the third largest PC firm in the world, following Dell, Inc., and Hewlett-Packard, Inc. One rational explanation for IBM’s performance is that unlike Lenovo, the PCD of IBM was unable to respond to environmental change despite its abundant resources (Wu 2010).

The DCA has attracted extensive attention from marketing and management scholars and practitioners since Teece et al. (1997)’s foundational publication on dynamic capabilities. Many reasons result in the popularity of this theory. The DCA shares similar assumptions with RBV and is considered as an extension of the RBV (Barney 2001b). The DCA closely focuses on internal competences and firm

performance, but it further enhances or complements the RBV by emphasising the ‘dynamic’. It provides an explanation of how the current stock of VRIN resources can be regenerated. It addresses the influence of market dynamism on firms’ pursuit of competitive advantage, that is changes in market conditions turn core capabilities into core rigidities (Ambrosini and Bowman 2009). Additionally, it also deals with the mechanisms that transform strategic assets into sustained competitive advantage, which is the ‘how’ question in the process black box of RBV (Makadok 2001; Wang and Ahmed 2007).

In Wu’s recent empirical study (2010), he examined the influence of VRIN resources and dynamic capabilities on firms’ competitive advantage, incorporating the impact of environmental volatility. Data from 253 Taiwanese technology firms shows that RBV is applicable when environmental volatility is ignored; however, when considering environmental volatility, the effectiveness and competitive advantage of VRIN resource are considerably reduced while the competitive advantage produced by dynamic capabilities is increased. Thus, the DCA has better explanatory ability than RBV in highly volatile environments, suggesting dynamic capabilities are more important than strategic resources in fast changing environments.

The DCA is ultimately about understanding a firm’s survival and growth. It draws from a range of theoretical perspectives, not just the RBV (Arend and Bromiley 2009; Helfat and Peteraf 2009). It concerns with the evolutionary path of capabilities, firms and industries and connects to organisational change, strategic renewal, and adaptation. Thus it is also rooted in the evolutionary economics perspectives. This perspective addresses the role of routines and how they shape and constrain the way in which firms grow and cope with changing environments (Helfat and Peteraf 2009; Nelson and Winter 1982). Evolutionary economics draws heavily on behavioural perspectives (Cyert and March 1963), which links DCA to the concerns that are rooted in behavioural theory, including organisational growth, processes and routines, organisational learning and managerial decision-making (Helfat et al. 2007; Teece 2007; Zollo and Winter 2002). Even though, none, except DCA that ‘specifically focuses on how firms can change their valuable resources over time and do so persistently’ (Ambrosini and Bowman 2009, p. 30). The next section will give more details in the conceptualisation of dynamic capabilities.

2.4.1 What Are Dynamic Capabilities?

Despite its strong theoretical foundation and popularity of DCA, a universally accepted definition of dynamic capabilities is slow to emerge (Easterby-Smith et al. 2009; Helfat and Peteraf 2009). While scholars view dynamic capabilities with different lenses, each work helps the understanding of the concept. This section introduces some of the influential works in understanding the dynamic capabilities. Teece et al. (1997, p. 516) defined dynamic capabilities as ‘the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.’ Dynamic capabilities can open new strategic alternatives

or paths for the firm, distinct to those afforded by the firm's assets and its evolutionary path (Teece et al. 1997). Teece et al. (1997) contended that dynamic capabilities are connected with firms' sustainable competitive advantage in rapidly changing environments.

In Eisenhardt and Martin's (2000) view, dynamic capabilities are the firms' processes or strategic routines, whose purpose is to manipulate resources to achieve new configurations to match and even create market changes. Those organisational processes or routines are such as product development routines, partnership and acquisition capabilities, resources allocation routines, and knowledge transfer and replication routines. According to Eisenhardt and Martin (2000), although dynamic capabilities are idiosyncratic processes that emerge from path-dependent histories of individual firms, they present commonalities in key features that are associated with effective processes across firms.

In addition, Eisenhardt and Martin (2000) hold a different view from Teece et al. (1997) by arguing that dynamic capabilities operate not only in rapid changing environment, but also in moderately dynamic markets where changes occur frequently following predictable and linear paths. However, the more dynamic a market is, the 'the sooner, more astutely, and more fortuitously' the firm needs dynamic capabilities to upgrade and recreate its core capabilities addressing the market dynamism (Eisenhardt and Martin 2000, p. 1117).

Another influential definition is provided by Helfat et al. (2007, p. 2): 'a dynamic capability is the capacity of an organisation to purposefully create, extend, or modify its resource base'. Helfat et al. (2007) noted that the word 'capacity' is carefully chosen instead of 'capability' or 'competence' as it indicates only some minimal ability to perform a task, regardless of whether it is done well or poorly. Thus, Helfat et al. (2007) believe dynamic capabilities alter the resource base in at least some minimally satisfactory manner but not necessarily superior. This opinion is shared by Helfat and Peteraf (2009).

Additionally, Helfat et al. (2007) stressed that the word 'create, extend, or modify' in the definition only apply to dynamic capabilities, not to operational capabilities. Operational capabilities pertain to the current operations of an organisation; whereas dynamic capabilities alter the resource base of an organisation (Katkalov et al. 2010). The alteration can be in many ways, such as obtaining new resources through acquisitions and partnerships, innovation and entrepreneurial activities, growth in an ongoing business or a change of a new business. Dynamic capabilities can be in any form as long as they modify the firm's resources responding to the environment changes (Madhavaram and Hunt 2008).

Dynamic capabilities are different from patterned and predictable organisational routines because of their intentional and deliberate nature (Helfat et al. 2007; Zahra et al. 2006). Routines partly serve the purpose of minimising the need for human governance on a continual basis by providing order and stability (Katkalov et al. 2010). Oppositely, dynamic capabilities emphasis the conscious human action in transforming existing routines, and even disrupt order and stability. Dynamic capabilities are also distinguished from ad hoc problem-solving capability or a spontaneous reaction (Helfat et al. 2007; Zollo and Winter 2002).

Dynamic capabilities can be tailored to the setting in which they function, including different industries, technologies, functional areas and organisations. Firms can have several different dynamic capabilities serving different purposes, such as new product development capability, idea generation capability and market disruptiveness capability. Some scholars contended that even small differences in dynamic capabilities among firms can result in differential firm performance (Adner and Helfat 2003; Zott 2003).

Another main stream in conceptualising dynamic capabilities is the emphasis of the important role of organisational learning in developing dynamic capabilities (Easterby-Smith and Prieto 2008; Romme et al. 2010; Zollo and Winter 2002). Dynamic capability is a learned organisational skill; the more frequently practiced, the easier, faster and the lower the cost of accomplishing the process (Teece et al. 1997). Zollo and Winter (2002) refer dynamic capabilities to ‘a learned and stable pattern of collective activity through which the organisation systematically generates and modifies its operating routines in pursuit of improved effectiveness (p. 340)’. The main contribution of this definition is it implicitly distinguishes dynamic capabilities from operational capabilities.

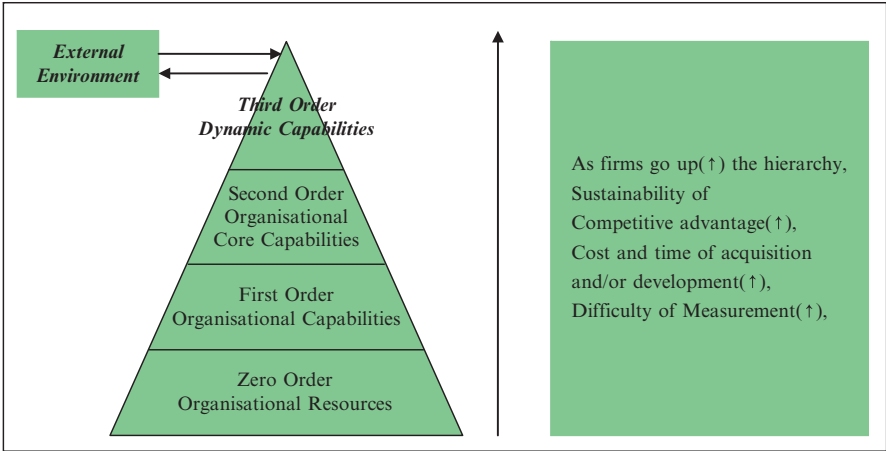
Other terms in extant literature are used to describe a similar concept with dynamic capabilities, such as ‘combinative capabilities’ (Kogut and Zander 1992), ‘architectural competence’ (Henderson and Cockburn 1994) and ‘second-order competence’ (Danneels 2008). They are all described as an organisational capability by which firms synthesise and acquire knowledge resources to generate new applications. Some other definitions of dynamic capabilities in literature are presented in Table 2.1.

Several classifications are proposed in literature to distinguish dynamic capabilities and operational capabilities. Winter (2003) proposed that there are zero-level capabilities, also called operational or ordinary capabilities. Those capabilities, similar to Zahra et al.’s (2006) substantive capabilities, permit firms to earn a living in the present. There are also first-level capabilities that modify and change zero-level capabilities. Zahra et al. (2006) also distinguished substantive capabilities from dynamic capabilities that change or reconfigure existing substantive capabilities.

A four-level hierarchy proposed by Wang and Ahmed (2007) is useful to explain the concepts of firm resources, capabilities, and dynamic capabilities. The hierarchy is presented in Fig. 2.1. Resources, the foundation or basis of firms’ capabilities, fall into the ‘zero-order’ element of the hierarchy. When ‘zero-order’ resources demonstrate VRIN attributes, they can be a source of competitive advantage. Capabilities, positioned at the ‘first-order’, lead to the improved performance when resources are deployed to attain a desired goal. Core capabilities, ‘second-order’, are bundles of firms’ resources and capabilities that are integrated in line with the firms’ strategic direction (Wang and Ahmed 2007). They are strategically important to firms’ competitive advantage, however only at a certain point of time. As core capabilities can become irrelevant or core rigidities when the environment changes (Leonard-Barton 1992). Finally, dynamic capabilities form the ‘third-order’, the top of the hierarchy. They are critical for renewal, reconfiguration and re-creation of resources, capabilities and core capabilities needed to address

Table 2.1 Definitions of dynamic capabilities

Definition	Reference
The subset of the competences/capabilities which allow the firm to create new products and processes and respond to changing market circumstances	Helfat (1997)
A global dynamic capability is the creation of difficult-to-imitate combinations of resources, including effective coordination of inter-organisational relationships, on a global basis that can provide a firm a competitive advantage	Griffith and Harvey (2001)
A newer source of competitive advantage in conceptualising how firms are able to cope with environmental changes	Lee et al. (2002)
Dynamic capabilities evolves at two levels: a micro-evolution through ‘upgrading the management capabilities of the firm’ and a macro-evolution associated with ‘reconfiguring market competencies’	Rindova and Taylor (2002)
Dynamic capabilities are essentially change-oriented capabilities that help firms redeploy and reconfigure their resource base to meet evolving customer demands and competitor strategies	Zahra and George (2002)
Dynamic capabilities are the ability to reconfigure a firm’s resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker(s)	Zahra et al. (2006)
Dynamic capabilities are defined as a set of learned behaviours, which are fully or partially repeated resulting partly from tacit knowledge, specific organisation objectives, combination of resources and activities which brings about change	Peppard et al. (2006)
A firm’s behavioural orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities and, most importantly, upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage	Wang and Ahmed (2007, p. 35)



Sources: adapted from Wang & Ahmed (2007) and Madhavaram & Hunt (2008)

Fig. 2.1 Hierarchical order of resources, capabilities, core capabilities and dynamic capabilities (Sources: Adapted from Wang and Ahmed (2007) and Madhavaram and Hunt (2008))

environmental changes. Dynamic capabilities are affected by firms' ordinary resources and capability and they also govern the rate and direction of the changes in resources and capabilities (Collis 1994). Thus, dynamic capabilities are not a simply subset of capabilities, but the ultimate capabilities that are very costly for firms to imitate and thus are conducive to long-term performance (Helfat et al. 2007; Wang and Ahmed 2007).

Another hierarchy of firm resources sharing the same fundamental principle with Wang and Ahmed (2007) was proposed by Madhavaram and Hunt (2008). Madhavaram and Hunt (2008) followed the Hunt (2004)'s classification of resources: operand resources (typically physical) and operant resources (Typically human, organisational, informational, and relational). The hierarchy of operant resources is developed as: (a) basic operant resources (BORs), (b) composite operant resources (CORs), (c) interconnected operant resources (IORs).

BORs are the basis of higher-order resources similar with the 'zero-order' resources in the above hierarchy. CORs are the combination of two or more distinct basic resources with low levels of interactivity that collectively enable firms to efficiently and effectively produce valued market offerings. CORs fall at the level of 'first-order' and 'second-order' capabilities in Wang and Ahmed's (2007) hierarchy. IORs are similar to CORs but with much more significant interactivity among the lower order resources, thereby resources reinforce each other in enabling firms to efficiently and/or effectively produce market offerings. According to Madhavaram and Hunt's (2008) explanation, dynamic capabilities should be viewed as IORs because they deliberately operate basic resources. The three underlying functions of dynamic capabilities in operating basic resources will be discussed in next section.

2.4.2 *Sensing, Seizing and Reconfiguring*

Based on the understanding of DCA literature, dynamic capability can be seen as a set of actions or routines taken by senior management that permits the firm to identify or sense (and shape) opportunities and threats, formulate a response to such opportunities and threats, and reconfigure assets to adapt to these (Helfat et al. 2007; Katkalo et al. 2010; O'Reilly and Tushman 2007; Teece 2007). Helfat et al. (2007) used the term 'asset orchestration' to include these three functions of dynamic capabilities: sensing, seizing and reconfiguring. They are the micro foundations (Teece 2007) or the enablers (Ambrosini and Bowman 2009) of dynamic capabilities.

Sensing and shaping new opportunities requires firms to constantly scan, create, search, learn and interpret across technology and market, locally and distantly (Teece 2007). Opportunities can be detected through two ways: firms have differential access to existing information; new information and new technology. A set of resources and routines are involved, such as investments in research activity, probing and re-probing of customer needs and technological possibilities, internal

discussion and argument of new opportunities, understanding latent demand, the structural evolution of industries and markets (Teece 2007). Information search should embrace the whole business ecosystem, including all potential active collaborators (customers, suppliers, and complementors) both locally and distantly (external).

Once opportunities and threats are sensed, firms need to act on them in a timely manner, which is *seizing*. Not surprisingly, some firms with new technology still failed to capture value from it due to the lack of seizing capability (Chesbrough and Rosenbloom 2002). Seizing opportunities, which can be referred to strategic execution or strategic decision skills, is making the right decisions and executing them into new products, processes, or services (Teece 2007). This capability requires a clear delineation of customer solutions and a business model that defines commercialisation strategy and investment priorities. Developing seizing capability also needs a decision-making protocol that recognises complementarities, avoids decision errors and biases, as well as commits resources to the opportunities. It is essential for incumbent managers to avoid the decision trap that is making decisions relying on path-dependent routines, assets, and developed strategies for existing technologies.

Firm growth and profits can be achieved when new opportunities are sensed and effectively seized. But to sustain the growth and profits, firms need the ability to continuously recombine and *reconfigure* organisational assets and structures as markets and technologies constantly change. The reconfiguration of existing resources and capabilities through new patterns of integration is much more complex than integration, as it involves the aligning of co-specialised assets to produce new value, thereby enhancing the combinations inside and between firms (Lockett et al. 2009; Teece 2007). The essence of recombining is value-enhancing or leveraging and coordinating (Lockett et al. 2009). Co-specialised assets are a particular type of complementary assets where the value of an asset is a function of its use in conjunction with other particular assets. Co-specialisation results in idiosyncratic assets that cannot be readily bought, sold and imitated in a market (Teece 2007). Reconfiguration is the process or structure that redefines role systems and relational patterns in a flexible way so as to make it easier to continuously recombine resources (Verona and Ravasi 2003). Periodic reconfiguration of the patterns of combined resources forms the essence of strategy (Brown and Eisenhardt 1997; Hargadon and Sutton 1997).

Reconfiguration capability is central to Abernathy and Clark's (1985) concept of "architectural innovation". Architectural innovation concerns not only product and process innovation, but also strategic innovations to reconfigure knowledge into new approaches (Abernathy and Clark 1985). It is the constant restructuring of existing core capabilities rather than the creation of new capabilities that results in continuous innovation in dynamically-competitive environments (Grant 1996). Reconfiguration is similar to Eisenhardt and Brown's (1999) concept of patching. Patching is a strategic process that involves realigning the match-up of business (add, combine, split) and related resources to environment changes (Eisenhardt and Martin 2000).

2.4.3 *Current Debates in DCA*

Although in its early stages, studies in the field of DCA have provided some preliminary evidences in terms of how dynamic capabilities develop new capabilities and their long-term consequences on organisational performance and survival (Di Stefano et al. 2010; Helfat and Peteraf 2003; Macpherson et al. 2004; Zollo and Winter 2002). For example, Verona and Ravasi (2003) undertook a longitudinal case study of a leading company in the hearing-aid industry—Oticon A/S and found that continual product innovation is a function of three dynamic capabilities: simultaneous and continuous creation (the ability to sense new technological opportunities), absorption and integration of knowledge (the abilities to seize and implement these advances through organisational processes and structures). Verona and Ravasi (2003) also explained how idiosyncratic dynamic capabilities are created by the specific composition of organisational resources (human and physical resources, structure and systems, and culture), and how these dynamic capabilities simultaneously sustain existing product innovation and spur the creativity beyond existing competencies, therefore avoiding the problem of core rigidities.

Pitelis and Teece (2009, 2010) pointed out that dynamic capabilities are a critical input to the market creating (and co-creating) process, particularly for innovating firms, such as when a new product is offered to customers. Anand and Khanna (2000) indicated that a dynamic partnership capability enables the firms to choose good and reliable partners, effectively structure their relationships and gain new knowledge that improves its performance. Figueiredo (2003) found that dynamic capabilities play a substantial role in the accumulation of technological capabilities in two Brazilian steel firms. Helfat (1997) argued that R&D is a dynamic capability enhancing firm's responsiveness to changes in market prices. Other examples also support dynamic capabilities have a significant impact on the new product development (Clark and Fujimoto 1991), project capability (Brady and Davies 2004), technology adoption and integration capability (Woiceshyn and Daellenbach 2005) and service capability (Athreye 2005).

The aim of DCA is ambitious: to understand how firms can sustain a competitive advantage by responding to and creating environmental change (Eisenhardt and Martin 2000; Teece 2007; Teece et al. 1997). This is one of the most central and difficult questions within the strategy domain. As DCA has received increasingly scholars' attention, inevitably, confusions and critiques have appeared along with its rapid development (Arend and Bromiley 2009). Arend and Bromiley (2009) argued that DCA has unclear value-added relative to existing concepts; it is lack of a coherent theoretical foundation; has weak empirical support and unclear practical implications.

Responding to these critiques, Helfat and Peteraf (2009) contended that theories that make sense of complexity do not come pre-packaged, and often develop slowly. DCA is rooted from various theories that bring a heightened risk of confusion and logical inconsistency. The DCA supporters (Helfat et al. 2007) have been at the forefront of efforts to resolve conceptual issues and explore empirical evidence that

are consistent with the concept. This effort is difficult and will take time. As for the non-consensus definition of dynamic capabilities so far, supporters (Eisenhardt and Ahuja 2007; Helfat and Peteraf 2009) explained that terms that are vague and elastic may have the advantage of facilitating a more flexible development path.

Some scholars adopted a notion that ‘the study of dynamic capabilities leads to a dead-end. Rather, to further our understanding of firm performance we need to study organisational adaptation rather than dynamic capabilities’ (Levinthal and Ocasio 2007). Opponents of this motion (Eisenhardt and Ahuja 2007) argued that DCA go well-beyond the study of organisational adaptation both in breadth and depth, lying at the heart of strategy. The DCA has shifted the focus of strategy to dynamic markets and organisational processes. Organisational adaptation is reactive focusing on ‘fitting’ the environment, whereas dynamic capabilities go beyond simple adaptation to being proactive with a focus on ‘winning’ the competition. Particularly in uncertain markets, the key to strategy is capturing opportunities faster and more flexible than competitors. Dynamic capabilities are the one that make this happen and create performance differences (Eisenhardt and Ahuja 2007; Zott 2003).

Furthermore, debate also exists in the way dynamic capabilities precisely affect business performance and sustainable competitive advantage (Easterby-Smith and Prieto 2008; Helfat and Peteraf 2009; Zott 2003). This will be discussed in Sect. 2.13 dynamic capabilities and firm performance.

This study is based on the RBV and DCA theories. Literature review is undertaken to examine the relationship between organisational resources, organisational (ordinary) capabilities, dynamic capabilities and firm performance.

Section II: Organisational Resources and Capabilities

2.5 Resources and Capabilities

According to RBV, assets which have the potential to gain competitive advantage can be broadly classified into resources and capabilities (Fahy 1996). Amit and Schoemaker (1993) defined resources as stocks of available factors that are owned or controlled by the firm. Porter (1980) considered firm resources as strengths that firms’ can use to conceive and implement their strategies. Grant (1991) and Eisenhardt and Schoonhoven (1996) defined resources as production process inputs that can be converted into final products via a range of other firm processes or routines. While Barney (1991, p. 101) referred the term ‘resources’ to virtually anything—assets, capabilities, organisational processes, firm attributes, information, knowledge, etc.—‘that enables the firm to conceive and implement strategies that improve its efficiency and effectiveness’. Similarly, Hunt (2000) defined resources as the tangible and intangible entities available to the firm that enable it to efficiently and/or effectively produce a market offering that has value for some market segments.

Capabilities, on the other hand, refer to a firm's capacity to deploy resources using organisational processes to achieve a desired end (Day 1994; Grant 1991). Teece et al. (1997) defined organisational capabilities as the abilities of an enterprise to organise, manage, coordinate or undertake specific sets of activities. Winter (2003, p. 991) defined a capability as 'a high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organisation's management a set of decision option for producing significant outputs of a particular type.' The terms capabilities and competences are essentially interchangeable (Madhavaram and Hunt 2008). Fiol (1991, p. 191) noted that 'competence thus encompasses more than a firm's stock of tangible assets. It encompasses the cognitive processes by which the stock is understood and translated into action.' Thus, capabilities are intangible processes or routines that are firm-specific and developed over time through complex interactions among the firm's resources (Dosi et al. 2008). Because capabilities are deeply embedded within the fabric of a firm, they are difficult for competitors to identify and imitate (Grant 1991; Amit and Schoemaker 1993).

Resources differ from capabilities. A basic distinction is that resources are the assets endowments a firm has accumulated while capabilities are the glue that binds these assets together and enables them to be advantageously deployed (Day 1994; Penrose 1959). Grant (1991) argued that resources are the inputs of production processes—the basic unit of analysis; they require to be coordinated to be productive. While capabilities are 'intermediate goods' in the production processes; they are bundles of skills and collective learning, exercised through a range of other organisational processes (i.e. management information systems, technology), aiming to convert resources into final products (Hunt and Morgan 1995; Makadok 2001; Peteraf 1993). Moreover, the differentiation can also be seen in Hunt's (2000) definition of capabilities. Capabilities are socially complex, interconnected combinations of tangible and intangible basic resources that fit together coherently in a synergistic manner to enable firms to efficiently and/or effectively produce valued market offerings (Hunt 2000).

Prior to discussing the importance of key organisational resources and capabilities on firm performance, the rationales of forming inter-firm business partnerships will be explained using RBV.

2.6 Explaining Inter-firm Partnerships Formation Using RBV

The past decades has been characterised by a large number of inter-firm partnerships across a wide range of industries (Gulati and Gargiulo 1999), as firms tried to cope with the increasingly turbulent and hypercompetitive environment (Anderson and Tushman 1990; D'Aveni 1994). Business collaborations are encouraged by two main factors: (a) changes in the business environment; and (b) firms' perception of vulnerabilities or deficiency in critical areas for maintaining their competitive advantage in the future, such as market share, brand recognition, product technology,

manufacturing processes or product variety (Child et al. 2005). Partnerships today often cross international boundaries, combine cooperative and competitive elements horizontally and vertically (Varadarajan and Cunningham 1995). The number of strategic partnerships has continued to grow at 25 % per year globally (Cravens and Piercy 2000; Pekár and Margulis 2003) and the figure could be growing during the period of economic crisis.

The RBV has been applied to explain the formation of business partnerships. According to the RBV, inter-firm cooperation is a networking strategy to access and develop complementary advantages among firms (Eisenhardt and Schoonhoven 1996; Palmatier et al. 2007; Sarkar et al. 2001). Complementarity is achieved when resources and capabilities are able to eliminate deficiencies and enhance strengths to each partnering firm (Lambe et al. 2002).

Based on the RBV, firms are heterogeneous with respect to their resource endowments (Barney 1991). Thus, firms may lack certain capabilities to be successful in certain areas (Das and Teng 2000). It is difficult for a single firm to possess all resources needed to develop and sustain competitive advantage in different circumstances (Dyer and Singh 1998). Moreover, the speed of change implies that there is no sufficient time for a single firm to develop required expertise in all necessary areas (Leitch and Richardson 2003). Thus, given the immobility of resource endowments and the difficulty of developing new resources, firms may find it easier to share resources through business partnerships (Park et al. 2002).

Accordingly, business partnerships are used to access, aggregate, share, or exchange those valuable resources to support firms' competitive advantage (Bantham et al. 2003; Johnson and Sohi 2003). The objective of partnering is creating the most value out of one's existing resources by combining these with others' resources, provided that this combination results in optimal returns, and minimises the time and cost of resource acquisition or development (Culpan and Kumar 1994; Das and Teng 2000; Morgan and Hunt 1999). It is noted by Varadarajan and Cunningham (1995, p. 292, 293) that 'a firm entering into a strategic partnership may either seek partners whose abilities augment its strengths or ameliorate its weaknesses.... When firms (in an alliance) have complementary abilities, each partner can concentrate on the part of the value chain where it can make the greatest contribution'. Hitt et al. (2000), in a study of international business partnerships, found that firms in emerging markets are more likely to select partners possessing strong financial assets, technical capabilities, intangible assets and willingness to share expertise; while firms in developed markets attempt to leverage their resources with firms that have unique competencies and local market knowledge.

Take the partnership between Nokia and Microsoft Corporation as an example. By 2007, Nokia and Microsoft joined together to provide customers with a new suite of Windows Live™ services specifically designed for Nokia devices. Microsoft took advantage of the extensive and agile distribution network that Nokia has and has brought the power of Windows Live services to devices users, beyond the PC customer. Meanwhile, the availability of Windows Live services for Nokia's devices has strengthened Nokia's commitment to deliver great mobile services, and improved customer satisfaction. Without the cooperation, the above advantages could not have been achieved by either firm.

In addition to acquiring complementary resources, firms enter partnerships to advance their knowledge, learn new skills and capabilities (Kale et al. 2000; Kogut 1988), and learn cooperative skills, such as alliance capabilities (Kale et al. 2002; Lambe et al. 2002). Partnership is an ideal flexible contracting form that allows firms to become close enough to acquire tacit and sensitive knowledge and skills from their partners (Cegarra-Navarro 2005; Lane and Lubatkin 1998). Effective transferring knowledge between partners contributes to a firm's capabilities base that allows it to differentiate its goods and services from those of the competitors. The learned skills and capabilities also help a firm provide greater value to customers, thus it contributes to the development of a competitive advantage (Collins and Hitt 2006; Collins et al. 2009).

However, the benefits of partnerships do not occur in a vacuum. Firms need to possess some valuable resources to attract potential business partners since the essence of cooperation is reciprocity, equal exchange, and mutual benefits (Oliver 1990; Voss et al. 2006). The fundamental irony of partnership activity is 'firms must have resources to get resources' (Eisenhardt and Schoonhoven 1996, p. 137). Firms engage in business partnerships only if they have something to gain and assess the likelihood of reciprocity by the abundance of partners' resources. Thus, a firm's resource condition not only influences its desire to create partnerships, but also its opportunity and ability to do so (Das and Teng 2000). As a result, possessing valuable resources and the willingness to share are prerequisite of business partnership formation (Das and Teng 2000; Park et al. 2002).

Partnering has been considered as an important capability that enables firms to choose valuable and reliable partners, effectively structure and govern partnerships, and gain new knowledge to improve its performance (Anand and Khanna 2000; Anand et al. 2007; Eisenhardt and Ahuja 2007; Teece 2007). To increase value of the firms' current resource base, it is important to identify the structure of resource base and fill in the gaps necessary to provide superior customer solutions. Partnering is one of the gap-filling strategies that improve the resource base (Ettlie and Pavlou 2006; Teece 2007).

In conclusion, based on the logic of RBV, strategic organisational resources and capabilities that demonstrate VRIN characteristics enable firms to implement strategies that competitors cannot imitate or duplicate and thus determine the firms' competitive advantage. For strengthening their resources base, firms establish business partnerships to access needed organisational resources and capabilities in other firms. The next section discusses the importance of each identified resource on firm performance.

2.7 Organisational Resources

Based on the RBV and business partnerships literature, five resources are identified as strategic resources contributing to firms' competitive advantage, namely *organisational reputation*, *brand reputation*, *financial resources* and *human resources*. These identified organisational resources are the most relevant resources to the

manufacturing organisations in China and they reflect critical aspects of business issues in this specific context. They are expected to contribute to business performance. Therefore, the following proposition is proposed and the hypotheses derived from it will be examined in the following sections.

Proposition 1. *Organisational resources are associated with firm performance.*

2.7.1 *Organisational Reputation*

Marketing and management academics have acknowledged the importance of organisational reputation on firms' competitive advantage (Barnett et al. 2006; Carmeli and Tishler 2005; Carter and Ruefli 2006). Due to the rapid increase of literature on reputation in recent years, the 'reputation landscape' (Fombrun and Van Riel 1997) have become chaotic with many 'different, sometimes even contradictory definitions for the term corporate reputation' (Gotsi and Wilson 2001, p. 24).

Barnett et al. (2006), meeting the call for 'one vision, one voice' (Fombrun and Van Riel 1997) in definitions and other theoretically oriented studies of reputation, summarised 49 unique sources with definitions of organisational reputation during the year 2000–2003. According to this work, organisational reputation can be viewed from three different angles: (a) as a state of awareness observers or stakeholders have of organisation without making judgments (b) as an assessment of the status of an organisation made by the stakeholders and observers and (c) as a resource, intangible, financial or economic asset. Barnett et al. (2006, p. 34) also provided a definition of corporate reputation, that is reputations are 'observers' collective judgments of a corporate based on assessments of the financial, social, and environmental impacts attributed to the corporation over time.' They disaggregated the concept of corporate identity, corporate image and corporate reputation, which are used interchangeably in the integrative definition of reputation (Fombrun and Van Riel 1997; Wartick 2002).

Most extant literature conceptualise organisational reputation as a multi-dimensional constructs composed of four components-namely products/services, environments, information, and behaviour (Olins 1990). Reputation Institute, however ranks organisational reputation in terms of workplace environment, emotional appeal, financial performance, vision and leadership, social responsibility, products and services (Bronn and Bronn 2005). Other researchers suggest that reputation includes financial performance, vision and leadership, financial disclosure, and corporate governance (Gabbioneta et al. 2007).

Organisational reputation is argued to have VRIN characteristics (Barney and Arian 2001; Dowling 2001, 2006; Roberts and Dowling 2000). A favourable reputation enhances firms' ability to recruit and retain top human capital (Gatewood et al. 1993), charge premium prices by diminishing customers' uncertainty toward products and services (Shapiro 1983), increase the sales revenue by attracting and retaining customers (Fombrun and Van Riel 2004). Reputation can also improve brand effects (Dowling 2006) and sustain corporate profits (Roberts and

Dowling 2002). Firms with a strong positive reputation can be a good candidate for favourable treatment by the media and attract investors (Fombrun 1996; Fombrun and Van Riel 2004).

The rarity of reputation can be explained by that favourable reputation is a relative construct because the reputation of a firm gains or losses value only in comparison with that of other firms' (Obloj and Obloj 2006), and only a few firms are given favourable top reputation when assessed and evaluated with other competitors (Carter and Ruefli 2006).

Favourable reputations have also been cited as being inimitable, and non-substitutable (Dowling 2001; Roberts and Dowling 2002). Reputation is determined by the value (quality) of the firm's previous efforts or performance (Podolny and Phillips 1996). It emerges from the accumulation of multiple images over multiple periods of time (Rindova 1997). Thus, the historical conditions, causal ambiguity, and socially complexity of reputation building determine the inimitable and non-transferable attributes of reputation cross firms (Barney 1991; Carter and Ruefli 2006). The possibility of obtaining potential substitution of reputation to allow the firm to effectively implement the same strategies seems to be limited (Carter and Ruefli 2006; Deephouse 2000). Another important characteristic of corporate reputation is durability (Roberts and Dowling 2002). Reputation depreciates and appreciates slowly due to the long-term interpretative process required by constituents to form or change their perceptions of a reputation (Grant 1991; Rindova and Fombrun 1999).

In view of that, organisational reputation has been highlighted as a strategic asset which contributes to the firm's competitive advantage (Barney 1991; Dierickx and Cool 1989; Dowling 2006; Rindova and Fombrun 1999) and superior firm performance (Low and Kalafut 2002; Roberts and Dowling 2000). Bronn and Bronn (2005, p. 46) noted that reputation 'is not on a balance sheet or income statement, but it does add to value creation...' Hall (1992) indicated that British companies consider corporate reputation as one of the 13 most important intangible resources for organisational success. Srivastava et al. (1997) explained that organisational reputation affects a firm's value by influencing how investors perceive the firm's risk. Antunovich et al. (2000) found that the most-admired firms out-perform (on average) the market, while the least-admired firms under-perform within it.

Organisational reputation is an important factor in the formation of business partnerships. Firstly, a reputation favoured firm is perceived as more attractive partner than other firms because the signalling effect of reputation (Dollinger et al. 1997; Fombrun 1996). Organisational reputation is the initial part of social capital that solidifies credibility, reliability, responsibility, trustworthiness and accountability (Fombrun 1996). These characteristics are favoured by the constituencies as they perceive the reputed firm as honest, fair, trustworthy, and able to supply good quality products/services (Shapiro 1983), having superior financial status, and predictable firm characteristics and actions (Obloj and Obloj 2006).

Secondly, due to the spill over effect of reputation, establishing relationships with highly regarded partners strengthens a firm's own reputation as a desirable and reliable partner (Houston 2003). Consequently, the firm is more likely to have prominent partners and access to prestigious investment banks in the future (Carmeli

and Tishler 2005). In addition, a reputable firm can also attract and retain higher level of human capital, which further improves the quality of human resources, and managerial resources and capabilities, and productivity.

Thirdly, scholars have argued that reputation can substitute for effective social control mechanism (Kogut 1988; Lin 2006), since highly regarded firms are less likely to behave opportunistically (Carter and Ruefli 2006). Opportunistic behaviours can damage the hard-earned reputation and put previous image investment at risk (Erdem and Swait 1998).

In Chinese business markets, corporate reputation is important for firms to be distinguished from others due to inferior and counterfeit products in China (Luo 2000a, b). Chinese consumers have developed an affinity for reputed brands. Thus there is a special need for Chinese firms to establish legitimacy in their market (Hitt et al. 2004). Partnering with well-known firms can afford such legitimacy and enhance prestige of Chinese firms. Moreover, Fombrun and Pan (2006) indicated that most Chinese companies view reputation management (i.e., building relationship with well-known firms) as a system of ‘face-saving’. ‘Face’ is an important element in social relationships in China. Face is the respectability and/or deference which a person can claim for himself from others, by virtue of the relative position he occupies in his social network and the degree to which he is judged to have functioned adequately in that position as well as acceptably in his general conduct (Ho 1976). Face impacts the way Chinese managers develop reputations. Based on the above observations, it is proposed that:

Hypothesis 1: *Organisational reputation is positively associated with firm performance.*

2.7.2 Brand Reputation

The knowledge-based era highlights the importance of customer relationships and fosters a customer-led and market-oriented behaviours (Abimbola and Vallaster 2007). In such market, the financial value and increasing importance of brand reputation on firm performance have been identified (Kay 2006; Leitch and Richardson 2003). Thus, considerable interest amongst both researchers and industrial practitioners has arisen in the field of brands (De Chernatony 1999; Raggio and Leone 2007).

Branding is a means to build consumer awareness by naming the offer, but more importantly, is a symbol having memorable associations and strong meaning that distinguishes the offer from other similar products within an established category (Kay 2006). Brands are symbols that unconditionally respond to customers’ needs and aid consumers’ understanding of the offering’s characteristics in an ongoing interaction between firms and customers (Urde 1999). According to Kay (2006), brands are considered as “logical structures” that are similar to metaphors or representations in consumer perceptions and explaining why products and services

have meaning for consumers. Although the definitions of brands may vary, it is generally acknowledgeable that marketers' main aim of promoting brand reputation is to create a positive consumer perception toward their products, which in turn results in purchase at a premium price over non-branded products (Dickinson and Barker 2007; Low and Lamb 2000). Brands value can be very impressive, for example, as a top brand, the Coca-Cola brand is worth a value around \$83.8 billion (Gao et al. 2006).

A strong brand has significant impacts on firm performance, going far beyond its role as a sub-element of the marketing mix (Park et al. 1996). Strong brand reputation can create differentiation that goes beyond the limits of the features and attributes of the product itself (Leuthesser et al. 2003). Hoeffler and Keller (2003) suggested that strong brand reputation can be powerful especially during times when consumers face uncertainty in choices. Powerful brand reputation is culturally connected, socially significant and interacting with identity formation, thus the power of brand reputation can promote customer loyalty and influence their propensity to purchase an offering (Abimbola and Vallaster 2007; Holt 2004), and can help firms avoid direct or 'head to head' competition (Kay 2006, p. 745). The added value of brand reputation to consumers is a type of social value that is difficult to strictly assess in financial terms, therefore brand reputation is a fundamentally intangible concept within the marketing discipline (Vargo and Lusch 2004).

Moreover, a strong brand is one of the key drivers of developing positive corporate reputation, because a strong brand enhances the relationship between a firm's offerings and its consumers (Wang et al. 2006). This corporate reputation driver can help a firm establish distribution networks, enable brand extensions to aid customer acceptance of new products (Leuthesser et al. 2003), and strengthen pricing flexibility (Kay 2006). Therefore, there is widespread agreement in the literature that brand reputation represents valuable firm resources (Amit and Schoemaker 1993; Balmer and Gray 2003).

Strong brand reputation is rare and inimitable (Park and Srinivasan 1994). Strong brand reputation is developed on the basis of firm's substantial, expensive and historic investment in marketing communications. The complex nature of brand reputation makes them closely tied to the firm's routines, systems, and cultures, thus prevents rivals from imitating successful brands easily or readily (Capron and Hulland 1999). Furthermore, the strong consumer awareness and superior consumer attitude associated with brands are based on the individual's consuming experience and faith, thus are not easily imitated. With low substitutability in nature, brand reputation is argued to be a type of strategic resource contributing to firms' competitive advantage (Capron and Hulland 1999; Gao et al. 2006).

Brand reputation plays an important role in the formation of business partnerships. Forming a partnership with firms possessing powerful brands resulting in several benefits, such as improving brand equity through sharing and combining brands of partnering firms and increasing brands' familiarity in established as well as new markets (Dickinson and Barker 2007; Leuthesser et al. 2003; Swaminathan 2006). Brand equity occurs when consumers become aware of the brand and develop strong, favourable, and unique associations towards the brand in their memory.

The improvements on brand reputation can generate a number of possible benefits such as increased market share and profitability (Hoeffler and Keller 2003). Besides, business partnerships increase both firms' brands differentiation and product differentiation as partnerships develop new brands' associations (Lebar et al. 2005). Partnerships allow firms to gain access to new markets since firms can build brand awareness and/or enhance brand recognition with the help of partners' strong brand reputation (Geylani et al. 2008).

In addition, the "perceived fit" of brand reputation between partnering organisations is important for the positive evaluations of customers on brand partnerships (Dickinson and Barker 2007). Prior research indicates that consumer perceptions of how well the products "fit" together influence their attitudes toward the joint offering of the partners, if positively, then enhance the success of partnerships (Park et al. 1996). Inconsistent images of joint brand reputation may result in confusion on products and cause high uncertainty about the partnerships (Swaminathan 2006). Further, Dickinson and Barker's (2007) research found that greater perceived "fit" between brand partners allows greater benefits for joint brand reputation due to the "spill over effects". Spill over is an investigation of posting attitudes of co-brands partnerships towards original brand partners.

In China, organisations are more likely to form partnerships with companies possessing famous brands as most Chinese manufacturers do not have prerequisite marketing capabilities to establish strong national and international brands (Hitt et al. 2000; Dong and Glaister 2006). Chinese manufacturers usually focus on manufacturing and supplying cheap and quality products. On the other hand, global brands, especially European and American based companies outsource the manufacturing activities, thereby realising their core resources and capabilities for other profit-generating business activities such as, marketing, and new product research and development. However, such partnerships expose branded companies to a high risk of developing potential rivals, because manufacturing firms are able to produce similar or comparable products if partnership is terminated. Based on the above arguments, thereby, it is proposed that:

Hypothesis 2: *Brand reputation is positively associated with firm performance.*

2.7.3 Financial Resources

Financial resources, the capitalization of firms (Hunt and Morgan 1995), are an important organisational resource contributing to firm performance (Barney 2002; Das and Teng 2000). Financial resources exist in the form of cash reserves or cash available through stock issues, loans, bonds, and other financial instruments (Hofer and Schendel 1978; Hooley et al. 1998). The variation of internal and external sources of funding enables firms to invest in research projects and programs, invest in facilities for training and education, attract the right future partners or customers, and collaborate and acquire other companies (Peppard et al. 2006).

Financial resources are considered important for organisational growth (Gratchev and Bobina 2001; Hitt et al. 2000). Firms face numerous economic, institutional and legal obstacles in their operation but the lack of finance constitutes a major obstacle, especially for small- and medium-sized firms (Gratchev and Bobina 2001). Kaleka (2002) empirically investigated the industrial manufacturing firms in United Kingdom and observed that firms with superior financial resources are in a comparatively stronger position to offer superior services to customers than rivals, as they can swiftly fund the development and acquisition of necessary resources. The availability of financial resources constrains the firm's ability to develop and deploy necessary resources and capabilities, hence impacts the firm's accumulation of strategic assets stock (Lee et al. 2001b). However, financial resources can only create limited competitive advantage, since such resources are not rare, inimitable, and are tradable in the marketplace (Hunt and Morgan 1995; Lee et al. 2001b).

Financial resources are one of the critical considerations when firms select business partners (Luo 2000b). Generally, partners that are financially healthy, and require less capital and financial investment from partnerships are preferred, since firms are sensitive to the potential returns on investments. However, partnerships do exist between financially rich and poor firms. For financially restricted firms, access to the capital is particularly critical for their growth and survival (Hitt et al. 2000). Through a partnership, they may get capital at lower cost and gain more benefits from resource sharing than in other ways. While for financially rich firms, if they believe the less rich firms have the potential to survive and grow after receiving financial support and there are substantial benefits from exchanging their financial resources with the partner's other critical resources (i.e. key technology), they are likely to leverage superior financial resources in partnerships. Thereby, it is predicted that:

Hypothesis 3: *financial reputation is positively associated with firm performance.*

2.7.4 Locational Resources

Locational resources are considered as one type of manufacturing resources (Hooley et al. 1998; Morgan and Hunt 1999), which are used to produce and market goods and services. Locational resources include elements such as geographic location of plants, accessibility to transport networks and raw materials, availability of complementary business at local place and the condition of local regulation and politics.

Manufacturing resources such as land, factories, etc., are important part of firm's assets (Amit and Schoemaker 1993; Barney 2002). However, they are rarely argued as the basis of sustainable competitive advantage (Morgan and Hunt 1999). Although the geographic location can be a distinct advantage in specific markets, it lacks of geographic barriers to other competitors and the development of information and facilities technology makes such spatial advantages rapidly become diminished (Morgan and Hunt 1999).

Locating at a place where firms can easily access to raw materials is advantageous as reliable supplement of raw materials can reduce the cost, delivery time and ensure good quality of raw materials. It helps firms provide superior quality and lower cost of final products or services than rival competitors', subsequently enhances firms' cost and product advantages in marketplaces (Wernerfelt 1984). One of the quarterly business confidence surveys from Business chamber FICCI in 2006 shows that the increase in cost of raw materials is the key challenge organisations confront in maintaining and improving their performance growth, with nearly 70 % organisations reporting this is a constraining factor. Further, the availability of complementary business is another indispensable factor for efficient manufacturers. For achieving high efficiency in production tasks, manufacturing firms, especially small and medium sized ones, are located in a production network or cluster. The cluster of firms manufactures as an organisational-group. This cluster manufacturing is the most popular business pattern in the Chinese manufacturing sector, such as in Wenzhou, China, thousands of small manufacturers work corporately to produce products.

In China, the location of firms impacts operations (Park and Luo 2001) because different areas may have different governance systems derived from China's experimental reforms (Nee 1992). The inconsistencies in the Chinese reform agenda give rise to wide variations in the economic development, business atmosphere, and government policies across difference areas (Lau et al. 2002). Relatively developed and open cities have attracted the majority of foreign investments and the participation of foreign firms substantially changes the market. Those locations are more market-based economy, more application of western-style business operations, more exposed to new technologies and ideas and more competitive markets. In contrast, in less developed areas, the legacies of the country's planned economy are evident: competition is minimal, government intervention is strong and resources are scarce (Zhou et al. 2006). Thus firms have fewer opportunities to expose to new ideas and technologies and thus are constrained in their development. Based on the above arguments, it is proposed that:

Hypothesis 4: *Locational resources are positively associated with firm performance.*

2.7.5 Human Resources

In highly competitive markets, people have been given great attention and identified as a source of competitive success (Saa-Perez and Garcia-Falcon 2002). Carly Fiorina, CEO of Hewlett-Packard, stated that "the most magical and tangible and ultimately the most important ingredient in the transformed landscape is people" (Hitt et al. 2001, p. 13). The human element has grown in importance because the knowledge-based resources have been recognised as an increasingly competitive asset for gaining a competitive advantage, particularly in the new economy landscape (Grant 1996). According to Pringle and Kroll (1997), intangible knowledge-based resources (i.e. people) are more likely to lead to competitive advantage when the environment

is rapidly changing. Youndt et al. (1996, p. 839) commented that “people may be the ultimate source of sustained advantage since traditional sources related to market, financial capital, and scale economies have been weakened by globalisation and other economic changes.”

The attributes of human resources, including education, experience and skills, constitute the knowledge stocks in organisations. Knowledge can be classified into tacit and explicit knowledge (Senker and Faulkner 1996). Explicit knowledge is more tangible and observable and can be conveyed orally or in writing (Kogut and Zander 1992); whereas tacit knowledge is difficult or impossible to codify in written form (Grant 1996; Nelson and Winter 1982; Reed and De Fillippi 1990). Tacit knowledge, which cannot be easily communicated and shared, is embedded in individual skills and collaborative working relationships (Hitt et al. 2001).

People gain knowledge through two ways: formal education (explicit knowledge) and learning-by-doing on the job (tacit knowledge) (Hitt et al. 2001). It is suggested that educational level of employees can be a source of labour productivity contributing to organisational efficiency and effectiveness (Carmeli and Tishler 2004). Besides, high level education improves the prestige and quality of his social networks, that can be another valuable resource. Individuals develop tacit knowledge through ‘learning by doing’ (Pisano 1994). Their experience in careers builds valuable industry-specific and firm-specific knowledge, as well as their social networks that are often tacit and the least imitable form of knowledge.

Human resources are identified by RBV theorists as valuable, rare, inimitable, non-substitutable, imperfectly immobile resources contributing to firms’ competitive advantage (Barney 1991; Wright et al. 2001). Human resources add value to firm performance because people differ in their capacities, and therefore in their contributions. Hitt et al. (2001, p. 13) noted that “one answer to the critical question in strategic management regarding why firms vary in performance is that they differ in human capital.” Human resources are rare because it is difficult to find people who guarantee high performance level in the organisation due to the heterogeneity in labour market (Saa-Perez and Garcia-Falcon 2002). People’s knowledge, abilities, and experience are causally ambiguous, path-dependent and socially complex in nature (Hatch and Dyer 2004), resulting in the inimitability of human resources. In addition, a person’s job performance depends not only on his knowledge, but also on his satisfaction, motivation, intuition, and personality, that are found to be hard to imitate (Olalla 1999).

The human resources are non-substitutable because it is very difficult to get the same results from different resources (Wright et al. 2001). Although human resources may be mobile to some degree, capabilities may not be valuable for all firms, especially the firm-specific capabilities (Hitt et al. 2001). Besides, when a firm acquires new human capital, it takes time to adjust until the best uses of the human capital are discovered and tailored to the needs of the organisation (Hatch and Dyer 2004; Teece et al. 1997). Thus, the firm-specific feature and adjustment costs prevent human capital to be immediately expropriated by rivals.

In business partnerships, human resources “can, alone, decide its success or failure” (Sunoo 1995, p. 30). One of the main objectives of forming partnerships is

to share and combine knowledge that is tacit, in the form of “know-how”, skills, and “practical knowledge” of organisational members (Dyer and Hatch 2006; Simonin 1999). Tacit knowledge is revealed through its application and can only be acquired through its practice (Grant 1996). Given the immobility of human resources, partnership becomes an ideal form for organisations to access tacit knowledge embedded in external human resources, reducing the cost in searching, training, and adjusting human capital (Hatch and Dyer 2004).

Four main tacit knowledge firms can obtain from business partnerships are local market knowledge, advanced and specialized technological knowledge, advanced managerial knowledge, and strategic cooperative skills (Beamish 1994; Kotabe et al. 2003; Simonin 1999, 2004). According to Beamish (1994), firms from developed markets choose partners primarily based on market knowledge and access when they expand the business into new markets. They work with local firms to access the knowledge about customers, distribution channels, characteristics of local markets, local culture, and idiosyncratic local government policies and regulations. In the contrast, firms in developing markets seek partners who possess advanced technological and managerial knowledge to help them improve their resources endowment (Dong and Glaister 2006; Hitt et al. 2000). Further, working in partnerships, people gradually develops and accumulates collaboration knowledge through learning-by-doing in repeated actions. Kotabe et al. (2003) suggested firms to engage in simple task partnerships at first to develop their skills of learning and knowledge-transferring, and then undertake complex joint project; also choose ‘easy, less threatening’ firms for learning, and then choose “tough” partners to compete.

Due to the low cost of labour, huge potential of purchase power, and favourable political policies in Chinese markets, numerous international organisations have expanded their businesses into China. However they have experienced a high failure rate (Bjorkman and Lu 1999). Thus they choose to cooperate with local firms and take advantages of the tacit market knowledge from Chinese partners and low cost of labour in China. Many working positions in manufacturing firms do not require highly educated people. China has a large source of cheap and unemployed labour from rural areas. For a Chinese firm, owing to the increasing competition in product-markets, they need to cooperate with partners who possess advanced professional knowledge in specific field to update their skills and technologies base (Leitch and Richardson 2003). Therefore, based on the strategic importance of human resources, it is proposed that:

Hypothesis 5: *Human resources are positively associated with firm performance.*

2.8 Organisational Capabilities

Based on the RBV and literature on business partnerships, five strategic organisational capabilities are identified to contribute to firm’s competitive advantage, naming: *manufacturing capability, managerial capability, marketing capability,*

learning capability and technological capability. These identified organisational capabilities are the most relevant capabilities to the manufacturing organisations in China and they reflect critical aspects of business issues in this specific context. They are expected to contribute to the business performance. Therefore, following proposition is proposed and the hypotheses derived from it will be examined in the following sections.

Proposition 2. *Organisational capabilities are associated with firm performance.*

2.8.1 Manufacturing Capability

In operational management, strategic manufacturing capability directly influences an organisation's success because it is the potential behaviour modes of an organisation with which it can support and shape corporate strategy (Grobler and Grubner 2006). Manufacturing capability, or operational capability (Fritz 1996), is a multi-faceted complex concept (Sarmiento et al. 2010). Although different capabilities are discussed in literature, four dimensions are found to be basic or "competitive priorities" in the content of strategically relevant capabilities in manufacturing: quality, delivery, cost and flexibility (Da Silveira 2006; Grobler and Grubner 2006; Li 2000; Rosenzweig and Aleda 2004).

Quality capability concerns product and process characteristics, and the conformance of the manufacturing process (i.e. to what extent manufacturing follows effective and documented routes that guarantee error-free products) as well as the conformance of product performance (i.e. to what extent the products follow their specifications and offer useful features) (Grobler and Grubner 2006). Thus, quality depends on the design and production of products that serve superior features to meet customer expectations. The quality capability also displays in the pre-sale, transactional, and post-sale services where it means the helpfulness, availability of services employees, and convenience of access to service (Li 2000).

Delivery capability refers to the capability of a firm to fulfil its duties in a swift and reliable way (Corbett and Claridge 2002). Delivery is usually defined in by a number of aspects of an organisation's operations: how quickly a product or service is delivered to a customer; how reliably (without defects) the products or services are developed and brought to the market, and the rate at which improvements in products and process are made (Krajewski and Ritzman 1996).

Cost capability, referring to the ability to utilise inputs in more efficient ways over competitors, has a direct impact on firm's pricing advantages. It consists of several elements, such as materials, overhead costs and labour productivity, and inventory turnover. Many new processes and philosophies such as Just in Time (JIT), Manufacturing Resources Planning (MRP), and Total Quality Management (TQM) have sought to enhance firms' price competitiveness by driving down inventory, production and overhead costs (Cua et al. 2001).

Flexibility is the ability to offer high flexibility concerning the possible mix (i.e. how broad is the range of products and variants a firm can offer) and volume of customer orders (quickly accelerate or decelerate the rate of production to handle large fluctuations in demands) (GroBler and Grubner 2006). It reflects whether production operating system can be flexible enough to handle specific customer needs and changes in design. The importance of this capability arises from increasing dynamism of market, variety of customer needs as well as increasing competition in the marketplace that requires manufacturing firms to adapt to numerous contingencies (Collins and Schmenner 1993). The strategic flexibility creates changes and shapes the environment to a firm's own advantages rather than a passive capability to meet the requirements of a changing environment (Gerwin 1993).

The inter-relationship between manufacturing capabilities is important as the way in which manufacturing capabilities relate to each other plays a major role when constructing manufacturing strategies and designing programs to improve performance of manufacturing systems (GroBler and Grubner 2006). Sand-cone model, proposed by Ferdows and de Meyer (1990), provides a distinct approach to explain the complex relationships among manufacturing capabilities. According to the model, manufacturing capabilities are sequentially built over time with the quality capability as the foundation for achieving the other three capabilities on a higher level. Delivery capability serves on the next level in the capabilities building, and influences the improvement in cost and flexible capabilities (Corbett and Claridge 2002). The cost and flexible are highest capabilities in the cumulative path, and there is a trade-off relationship between them. Mostly, it is assumed that a company can either be cost efficient or flexible in its operations (Hill and Portiolo-Staudacher 2003). It is argued that an organisation should limit its flexibility to a necessary level because costs are involved with building up flexibility (Anand and Ward 2004). Otherwise, the firm will find itself "stuck in the middle" (Porter 1980) by simultaneously emphasizing all capabilities. This reflects the discussion on a trade-off between efficiency and resource slack (Mishina et al. 2004).

An appropriate fit between manufacturing strategy and external market in choosing manufacturing capabilities can lead to a better business performance (Li 2000). In the fast-changing Chinese markets, the requirements for new manufacturing processes and fast introduction of new product/services tend to make Chinese manufacturers to develop high flexibility, effective delivery, and low cost capabilities. Besides, the transition from a state-planned economy to a market economy encourages manufacturers to compete on cost efficiency and flexibility, such as inventory reduction, fast response to customers, more variety of products (Li 2000).

It has been reported that powerful manufacturing capabilities, in the centre of manufacturing strategy, is associated with above average firm performance (Carlos et al. 2007; Corbett and Claridge 2002). For instance, Fullerton and McWatters (2001) reported that manufacturing firms that adopt JIT systems display higher financial performance compared to those that have not formally adopted JIT. Chung et al. (2008) investigated 15 Taiwanese enterprises across industries which have adopted TQM, they found the business value and financial ability of those enterprises are above average industry level. Subedi and Maheshwari (2007) suggested

that perceived quality and profitability are strongly related and those firms with superior product/service offerings are more profitable in the long run than those with inferior quality. Li (2000), in a study of Chinese firms, indicated that flexibility capability is highly required in market economy, and is vital to increase market share, sales revenue and improvement of return on investment.

Cooperating with a partner possessing strong manufacturing capabilities, firms have a potential to improve their manufacturing flexibility by serving a larger variety of products/services and fulfilling more complex customer needs. Firms are also likely to improve their cost capability by improving the efficiency of resources utilisation in partnerships. Further, business partnerships are popular between Chinese manufacturers and foreign branded firms. Chinese manufactures have powerful manufacturing capabilities while branded firms are superior on their marketing skills. There is a bi-directional relationship between manufacturing capabilities (inside-out capabilities) and marketing capabilities (outside-in capabilities) (Day 1994). Manufacturing capabilities are the dependent and supporting function of marketing tasks (Hayes and Schmenner 1978). They allow market-oriented firms to market competitive products, fulfil customer needs as well as offer new marketing opportunities through innovation. On the other hand, marketing capabilities direct and guide the change and development of manufacturing capabilities. Therefore, possessing strong manufacturing capabilities is important for Chinese manufacturers to establish business partnerships, achieve and expand their business performance. It is proposed that:

Hypothesis 6: *Manufacturing capability is positive associated with firm performance.*

2.8.2 Managerial Capability

The growth of firms does not automatically take place, but must be strategically planned and effectively implemented by managers who have firm-specific experiences (Kor and Mahoney 2005; Penrose 1959). Firm growth can be studied as a dynamic process of management interaction with resources. The degree to which firm resources can be developed into superior performance varies as a function of managerial capability, or managerial comprehension (Wensley 1999). The need to understand how managers effectively utilise strategic resources in creating performance is highlighted in literature (Helfat et al. 2007; Sirmon et al. 2007).

Managerial capability is widely referred to the innate and learned ability, expertise and knowledge of managers in a firm (Castanias and Helfat 2001; Harris and Helfat 1997). Managerial capabilities can be classified into three categories: generic (or general) skills, industry-specific skills, and firm-specific skills, that are nested from most to least transferable between firms (Castanias and Helfat 1991, 2001). Industry-specific skills are those applied into particular industry or particular products/services. The firm-specific dimension of managerial skills is related to in-depth understanding of the organisation's history, culture, internal

strengths and weaknesses (Puffer and Weintrop 1991). Bailey and Helfat (2003) observed another skill—“related-industry” skill that can be transferred among industries to make related products or utilise related resources and production processes.

Adner and Helfat (2003) identified three underlying factors which influence the managers’ strategic and operation decisions separately and in combination: managerial human capital (Castanias and Helfat 1991, 2001), managerial social capital (Geletkanycz et al. 2001; Li and Zhang 2007), and managerial cognition (Johnson and Hoopes 2003). Human capital refers to the learned skills that require some investment in education, training, or learning. Managers with different level of human capital will have different bases of expertise that enable them to make different decision (Adner and Helfat 2003).

Social capital is derived from social relationships that can produce power, control and influence (Adler and Kwon 2002). It comprises of internal social capital which is inside the firm, and external social capital which is outside, both of which impact the managerial capability due to the information and resources available to them. Managerial cognition refers to the managerial beliefs and mental models that serve as a basis for decision making (Walsh 1995). Thus, cognitive base and value systems can lead to managers’ selective perceptions, field of vision, and provide the underlying logic for managerial actions (Hambrick and Mason 1984; Walsh 1995).

The heterogeneity of managerial capability exists as no any two managers can have the same managerial ability. The age, education and trainings, prior work experience, and personal traits, even gender affect the development of managerial capabilities. Managers assess and interpret information according to the mental templates that have developed over time (Adner and Helfat 2003). Thus managers make different corporate decisions regard to both the content and timing. Meanwhile, the information available to the managers and their social ties with influential business players and government agencies impact the managers’ ability to make organisational strategies (Li et al. 2009; Luo and Hassan 2009). Additionally, the heterogeneity of managerial capabilities appears due to the different resources endowment and capabilities in different firms, because the managerial decisions operate on the basis of resource and capability of an organisation (Adner and Helfat 2003; Sirmon and Hitt 2009).

Managerial rents are generated through the managers’ appropriate utilisation of firm’s resources and capabilities to implement strategic and operational corporate decisions (Castanias and Helfat 1991). Barney (1991, p. 117) noted that ‘managers are important in the resource-based model, for it is managers that are able to understand and describe the economic performance potential of a firm’s endowments, without such managerial analyses, sustained competitive advantage is not likely.’ Firms which consistently built on their core managerial capability appear to be successful over the long term (Mahoney 1995).

Firm-specific knowledge on resource endowment is critical for making unique strategies of a firm, appropriately allocating limited firms’ resources among different projects and achieving high return from investment (Kor and Mahoney 2005). The top management team and its beliefs about organisational evolution play an

important role in developing new resources and new combinations of resources (Penrose 1959; Rindova and Kotha 2001). It is there build and recombination of firm's resources and competences that updates the corporate strategies to keep a 'fit' with the constantly changing environment (Mahoney 1995). The development of firms' resources base, either exploitation or exploration, is also determined by managers' perception of opportunities to change existing routines or resource configurations, their willingness to undertake such changes and their ability to implement the changes (Atuahene-Gima 2005; O'Reilly and Tushman 2007; Zahra et al. 2006). A rigid response behaviour of a management team can lock a firm into existing market and technologies. For instance, Rosenbloom (2000) indicated that leadership's ability to develop critical capabilities responding to external market changes is a key ingredient in NCR Corporation's growth, survival, prosperity. Following this, some researchers defined managerial capability as a dynamic capability to build, integrate, and reconfigure organisational resources and competences (Adner and Helfat 2003; Sirmon and Hitt 2009).

Further, given the knowledge on employees' profiles, managers can effectively apply diverse employee skills into appropriate jobs and thus maximise the effect of employee skills. In addition, experienced managers can behave in ways that optimise intangible resources within individuals and groups to enhance firm performance, such as cohesion, conflicts, and trust (Dionne et al. 2002; Ensley et al. 2002; Sosik et al. 2005). Managers have the responsibility to establish an organisational culture that encourages cross-department staff to work in collaboration achieving mutual goals (Kohli and Jaworski 1990; Le Meunier-FitzHugh and Lane 2009). Particularly, top team management cohesion is a critical firm resource that positively influence firm performance (Michalisin et al. 2004, 2007).

Managerial capabilities are the constant source of creativity, innovation and ability to change, consequently they enhance firms' marketing effectiveness, overall efficiency and financial performances (Sirmon and Hitt 2009). A number of researchers found evidence supporting the importance of managerial capabilities on firm performance (Kor and Leblebici 2005; Ray et al. 2004; Rosenbloom 2000). For example, Li and Zhang (2007) tested 300 new technology ventures in one of the most developed high-technology industry zones in China, and found that the managers' functional experience significantly and positive impacts on new venture performance. In an investigation of 108 multinational organisations in China, Luo and Peng (1999) found that the intensity and diversity of experience of managers are significantly related to firm performance, and this relationship is even stronger under greater environmental hostility and dynamism.

Managerial capability has also been stressed in achieving superior performance in inter-firm relationships (Hitt et al. 2000; Eisenhardt and Schoonhoven 1996). Based on prior alliance experience, managers may utilise their alliance skills and competences to design alliance strategies, such as spotting appropriate alliance opportunities, selecting suitable partners, effectively negotiating and designing the alliance (Kale et al. 2001). Managers also learn to use their social ties and information to evaluate potential benefits and costs of partnerships (Peyrefitte et al. 2002), identify useful resources and capabilities they can access (Lambe et al. 2002), and consider the

strategic and operational fit between partners (Kale et al. 2000; Sengupta and Perry 1997). It is noted that ‘The top executive of a firm can be expected to enact or construct a shared understanding of the situation that is used to determine which alliances are most beneficial to the firm’ (Chan and Riess 2004, p. 155).

The managerial capability of a firm not only influences the firm’s opportunities to enter into a partnership, but also affects the partnership performance through the managers’ coordination and control of operations. After selecting a partner, the managers are responsible for setting up each party’s responsibilities and tasks, to design an alliance type that generates the most benefits for their firm, and design effective governance mechanisms (Day 1995; Lambe et al. 2002). Governance mechanisms include the formal monitoring methods and informal relational factors between key individuals. Numerous studies have indicated the importance of relational factors on business partnership performance (Day 1995; Jap 1999; Styles and Hersch 2005; Varadarajan and Cunningham 1995). Therefore, well-developed managerial capability is a dispensable factor in the achievement of partnership success.

Learning tacit managerial skills is one of the most important motives of establishing business partnerships, especially for young firms or firms from developing countries (Dong and Glaister 2006; Hitt et al. 2000; Mowery et al. 1996). The tacit know-how, such as collaborative knowledge (Lambe et al. 2002), must be learnt by doing (Anand and Khanna 2000; Varadarajan and Cunningham 1995). The managerial knowledge acquired from partnerships can also apply to other fields of business practices outside the partnership, such as creating, recruiting and training human resources, performing market intelligence, creating image and reputation, and forecasting future business opportunities (Mursitama 2006).

According to Lyles and Baird (1994), the level of management capabilities and decision-making processes are different from firms under different market contexts. In emerging markets, such as China, management capabilities and decision-making processes are often not well developed. Many firms that are young or recently privatized are unlikely to have strong resource endowments (Hitt et al. 2000). Their executives tend to have inferior organisational and managerial capabilities (Luo and Peng 1999). Additionally, these firms often have little exposure to modern management concepts, techniques, and processes, which makes the need for advanced managerial skills even more important. However, the rapid economic, relative instable economic and political environment (Li and Zhang 2007), and less developed financial market and legal system (Hitt et al. 2004) in China require firms to have high level of managerial capabilities to sustain their competitive advantage. Thus, one of the most important motives of establishing partnership is to learn tacit managerial knowledge in China (Dong and Glaister 2006; Hitt et al. 2004).

The rapid economic growth requires managerial capability to be timely adjusted to the desired level to deal with the increased organisational complexity that is typically associated with a rapid rate of firm-level expansion (Tan and Mahoney 2007). Penrose (1959) indicated that the lack of managerial resources is typically the major obstacle that impedes the growth rate of a firm. When a firm experiences a rapid growth and an inelastic supply of managerial resources, the capacities of managers

set a limit to the scope and complexity of operations that a firm can plan and manage in any given period of time (Tan and Mahoney 2007). This economic impact of managerial constraints is cited as the “Penrose Effect” in literature (Hay and Morris 1991). By realising the importance of managerial capability and the rapid economic growth, the Chinese government has given particular attention to developing managerial skills (Luo 2000b). The government has offered various economic and tax incentives encouraging firms to develop managerial capability in the form of business partnerships with reputed international firms who possess advanced managerial systems (Luo 2000b). Therefore, it is hypothesised that:

Hypothesis 7: *managerial capability is positively associated with firm performance.*

2.8.3 Marketing Capability

Marketing capability has long been identified as a crucial element in enhancing organisational competitive advantage and performance (Day 1994; Dutta et al. 1999; Moorman and Rust 1999). Moore and Fairhurst (2003) defined marketing capability as simply organisational capability within the marketing context. A marketing capability acts as integrative learning processes designed to apply the collective knowledge, skills and resources of the firm to the market-related needs of the business. Consequently it enables the business to add value to its goods and services, adapt to market conditions, take advantage of market opportunities and meet competitive threats (Day 1994; Vorhies and Harker 2000). Therefore, marketing capability demonstrates an organisation’s ability to understand and forecast customer needs better than competitors and to effectively link its offerings to customers (Krasnikov and Jayachandran 2008).

Various functional areas of marketing capabilities or marketing processes are studied in extant literature (Fahy et al. 2000; Moore and Fairhurst 2003; Vorhies et al. 1999; Wang et al. 2004). By interviewing 93 senior marketing managers, Vorhies and Morgan (2005) identified eight distinct marketing capabilities that significantly contribute to value creation for customers and firms: product development capability, pricing capability, channel management capability, marketing communications capability, selling capability, marketing information management capability, marketing planning capability, marketing implementation capability. Vorhies and Morgan (2005) further empirically tested the eight capabilities in 230 firms in United State among six industries, and found all capabilities are positively related with the dimensions of firm performance (customers’ satisfaction, profitability, market effectiveness, and return on assets).

Product development capability refers to firm’s ability to design products that meet customer needs and internal organisational goals, and are able to outperform competitors’ products (Li and Calantone 1998; Vorhies and Harker 2000). A strong product development capability can enhance the exploitation of firms’ customer knowledge,

internal resource and development strength (Li and Calantone 1998). Consequently, firms can provide new products with differentiated attributes (e.g., quality, newness, uniqueness) from competitors' that in turn enhance brand image and customer satisfaction (Zou et al. 2003). Additionally, fast developing new products and/or services is an integral component of winning an innovation-driven competition.

Pricing capability refers to the ability to extract optimal revenue from the firm's customers (Dutta et al. 2003). It is the process of competitively pricing the firm's product and services, and monitoring prices in the markets that respond to competitors' challenges and customer changes (Vorhies and Harker 2000; Zou et al. 2003). The quick response to competitors' pricing tactics and changing customer needs can positively impact firm performance in competing markets (Zou et al. 2003).

Channel management capability is the firm's ability to effectively and efficiently establish and maintain distribution channels to deliver value to end-user customers (Weitz and Jap 1995). Developing close relationships (high trust and commitment) with channel members provide the base for firm's channel management capability (Morgan and Hunt 1999). The valuable and timely information offered by channel members is critical for firms to design their marketing strategies regarding to product and promotion adaptations (Cavusgil and Zou 1994).

Marketing communications capability is defined as the firm's ability to effectively use marketing communications to manage customer value perceptions (Vorhies and Morgan 2005). It includes three critical processes: market sensing, customer linking, and channel bonding (Day 1994).

Selling capability is simply the firm's ability to acquire customer orders. It is based on two main elements: promotional activities and quality of sales people (Weerawardena 2003b). Promotional activities, including advertising, sales promotions, publicity and personal selling, are widely used to communicate with the markets, sell products and subsequently gain growth in market share and sales avenues. The quality of sales people reflects the extent of sales-generating skills possessed by firms' employees.

Marketing information management capability, or market research in Vorhies and Harker's (2000) definition, refers to the processes by which firms learn about their markets and use market knowledge (Day 1994). The information forms a knowledge base of firms that supports and guides the development of firms' marketing planning to meet the requirements of external market environments (Day 1994; Morgan et al. 2003).

Marketing planning capability refers to the ability to conceive marketing strategies that match the firm's resources and conditions in its marketplace in ways that enable the firm to optimise its goal achievements (Morgan et al. 2003). Marketing planning capability is indirectly related to organisational success through firm's marketing implementation capability (Vorhies and Morgan 2005).

Marketing implementation capability concerns on the processes by which conceived marketing strategy is transformed into realised consistent, goal-directed resource deployments (Noble and Mokwa 1999). The processes involve resource allocation, monitoring, and organizing, that are central to a firm's adaptive performance (Morgan et al. 2003).

It should be noted that the eight marketing capabilities are interdependent with each other, and this interdependency factor is strongly linked with firm performance (Vorhies and Morgan 2005). This indicates that marketing capabilities should be evaluated or improved as a set; unbalanced development with superiority in only one or a small number of marketing capabilities cannot result in the overall high performance of marketing capabilities. For example, when a firm has a strong new product development capability, it still cannot exploit the advantages of new products if the firm lacks other marketing capabilities to convert the new products into commercially viable products.

According to RBV, firms' marketing capability is a source of competitive advantage (Hunt and Morgan 1995; Moorman and Slotegraaf 1999). Marketing capability is tacit in nature and path-dependent on the history of individual personnel and the organisation, which raises the difficulties for rivals' attempts to imitate (Fahy et al. 2000; Morgan et al. 2003; Simonin 1999). The development of marketing capability is a learning process of leveraging and experimenting with a firm's particular knowledge and skills with other intangible and tangible resources available to organisations. Accordingly, this makes marketing capability not easy to transfer and intimate (Tsai and Shih 2004). The interdependency among the dimensions of marketing capability makes it an even more inimitable resource (Morgan et al. 2003).

Among the entire firm's value creation activities, marketing capability is vital for enabling the firm to gain a substantial understanding of customer needs, develop products or services to meet these needs at an acceptable price for customers, communicate with potential customers of product attributes, and deliver the products or services to the end users in a timely manner (Grewal and Tansuhaj 2001; Vorhies 1998). In addition, marketing capability involves the processes that enable firms to build sustainable relationships with customers contributing to firm's competitive advantage (Krasnikov and Jayachandran 2008). Hence, prior research supported that strong marketing capability enables organisations to achieve their strategic goals (Day 1994; Grant 1991), and to obtain a desired strategic position and performance (Vorhies 1998). Morgan et al. (2000, p. 353) noted that 'firms devoting attention to harnessing marketing input in all areas of the strategy formation process are able to realise significantly greater business performance pay-offs than those firms where marketing does not make a vital contribution.'

Prior empirical findings support the positive association between marketing capabilities and firm performance in different context (Dutta et al. 1999; Krasnikov and Jayachandran 2008; Morgan et al. 2009). Zou et al. (2003), with a sample of 50 Chinese manufacturing exporters representing 20 industries, indicated that marketing capability including distribution, communication and product development capabilities contributes to firms' low-cost advantage and branding advantage, in turn strongly influences firms' financial performance. Vorhies and Harker (2000) reaffirmed that marketing capability positively impacts the firm's performance in terms of organisational growth, profitability, customer satisfaction, and adaptability.

Furthermore, Weerawardena (2003b) investigated 326 manufacturing firms and concluded that marketing capability has a significant association with organisational innovation intensity, and firms' competitive advantage. With a sample of 248

Chinese high-technology firms, Wang et al. (2004) provided empirical evidence of the significant contribution of marketing capability on the growth of market share, cost effectiveness, and firm's overall performance. Other research that has similar findings are by Tsai and Shih's (2004) research in Taiwan manufacturers, De Carolis's (2003) study in 14 global pharmaceutical companies, Fahy et al. (2000)'s work in central Europe, and Moore and Fairhurst's (2003) research in footwear retailing sector in United State.

The fast and aggressive competitive environment (D'Aveni 1994) and globalisation effects (Thoumrungroje and Tansuhaj 2004) have created numerous market opportunities and tremendous market threats at the same time. Firms' main marketing objectives are market expansion, and improvement of market position and corporate/brand reputation. For achieving these strategic objectives and reducing transaction cost, business partnerships, especially marketing partnerships, have emerged as an integral part of a firm strategy (Hoskisson et al. 2000). The partnering firms are coordinated either by pooling resources and capabilities of partners at the same stage of the value chain, or accessing to and utilizing partners' complementary marketing resources and capabilities to create value (Harrison et al. 2001). Therefore, firms are likely to achieve, such as economies of scales and scope, increase in product portfolio and speed of launching new product. Thus firms' product competitiveness and improved ability are enhanced (Thoumrungroje and Tansuhaj 2004; Wang and Xiang 2007).

Marketing capability is identified as one of the essential capabilities for organisational success in transition economies (Fahy et al. 2000). However, Chinese firms, that are young and private-owned, usually have less marketing skills than established foreign firms from developed countries. State-owned firms are appeared to have even less level of marketing capability than other types of firms in transition economies since the governance restrictions and heritages hinder the firms' ability to change (Fahy et al. 2000). Moreover, the trend of globalisation provides opportunities of business expansion to overseas. But Chinese firms face disadvantages of the lack of knowledge on local market, host country policy and social connections (Hitt et al. 2000).

This requires Chinese firms to either internally develop advanced marketing capabilities or externally search and access marketing capability. However, internally developing marketing capabilities are costly in terms of resources consumption and time. Thus, firms tend to cooperate with other firms and combine their marketing strengths to achieve their marketing objectives and cope with the increased competitiveness and market changes. The need for marketing capability reflects on the popular type of business partnerships that are between Chinese manufacturing suppliers and foreign branded firms. Chinese manufactures rely on the advanced marketing skills of partners to well position their products in customer markets. In conclusion, developing marketing capability has its strategic importance on firms' development in China, thereby, it is proposed that:

Hypothesis 8: *Marketing capability is positively associated with firm performance.*

2.8.4 *Learning Capability*

The pace of change in many societies requires organisations and individuals to be continually and rapidly learning. The concept of organisational learning is based on the idea that a knowledge base can rapidly become outdated unless new learning is acquired, and therefore individuals as well as the organisations must continually update their knowledge (Fong et al. 2007). This involves individuals adopting a continuous lifelong learning philosophy, and requires organisations to promote a culture that encourages people to learn and update their competencies (Zollo and Winter 2002). Organisations that are competent learners are called “learning organisations” (Sinkula et al. 1997).

Organisational learning is also linked to knowledge acquisition and the development of new knowledge and insights that can influence a firm’s behaviour (Easterby-Smith 1997; Kropp et al. 2006; Olavarrieta and Friedmann 1999; Prieto and Revilla 2006b). Huber (1991, p. 89) stated that ‘an organisation learns if any of its units acquires knowledge that it recognises as potentially useful to the organisation.’ Miller (1996, p. 486) noted that organisational learning is the ‘acquisition of new knowledge by actors who are able and willing to apply that knowledge in making decisions or influencing others in the organisation.’

Different models are proposed to understand the concept of learning in extant literature. Sinkula et al. (1997) argued that three dimension of organisational learning influence the propensity of firms to create and use knowledge, including commitment to learning, open-mindedness, and shared vision. Commitment to learning refers to whether a firm is likely to promote a learning culture. Open-mindedness refers to whether a firm proactively questions long-held routines, assumptions and beliefs and to what extent the firm proactively searches for change. Shared vision provides a foundation and direction for learning as it fosters energy, commitment and purpose among organisational members.

Prieto and Revilla (2006a) defined learning capability in terms of two dimensions: knowledge stocks that exist in individuals and organisations, and learning flows that continuously exploit and explore the knowledge stock in accordance with the environmental conditions. The underlying premise of the concept is that the development of competitive advantage depends on the accumulation of heterogeneous resource—knowledge—and the ability to develop, retain, transfer and use that knowledge.

Similarly, Jerez-Gomez et al. (2005) stress three main aspects of learning: (a) the acquisition or creation, dissemination and integration of knowledge within the firms; (b) the constantly internal changes at cognitive or behavioural level caused by the creation and dissemination of new knowledge; and (c) constant improvement on firms’ strategic actions provided by internal changes. Jerez-Gomez et al. (2005) also suggest the four dimensions are the basic elements that constitute organisational learning structure: managerial commitment, systems perspective, openness and experimentation, and knowledge transfer and integration.

Further, Goh and Richards (1997) and Goh (2003), analysed the commonalities among various recommendations in literature and identified five major strategic building-blocks in management practices of a learning organisation. They are clarity of purpose and mission, leadership commitment and empowerment, experimentation and rewards, transfer of knowledge, and teamwork and group problem solving. Clarity of mission and vision refers to the degree to which employees have a clear vision/mission of the organisation and how their work contributes to achieving it. Leadership commitment and empowerment refers to the role of leaders in the organisation with respect to facilitating employees to learn and their behaviours that are consistent with the learning-encouraging culture. Experimentation and rewards means the degree of freedom employees have in the pursuit of new ways of getting the job done and freedom to take risks. Transfer of knowledge refers to the effective communication systems that enable employees to learn from others, from past failures and from other organisations. Lastly, teamwork and group problem solving refers to the degree of teamwork possible in the organisation to solve problems and make decisions in various functions positions.

Most recently, Chiva et al. (2007) conceptualised learning capability as incorporating five underlying dimensions: experimentation (the degree to which new ideas and suggestions are attended to and dealt with sympathetically), risk taking (the tolerance of ambiguity, uncertainty, and errors), interaction with the external environment (the degree of relationships with the external environment), dialogue (the sustained collective inquiry into the processes, assumptions, and certainties that make up everyday experience), and participative decision making (the level of influence employees have in the process of decision making).

Organisational learning processes are used to transform and refine a firm's knowledge resources in accordance with the environmental conditions (Prieto and Revilla 2006a, b), and thus has the potential to enhance firm's strategic flexibility and the degree of freedom to adapt and evolve (Jones et al. 2003; Zahra and George 2002). Environmental changes force firms to learn. However, firms need to learn at a rate that at least equals environmental change if they are to develop and maintain core competencies that are valuable in the markets. Learning deficiencies can lead to the erosion of an organisation's position. Thus, an organisation's ability to constantly seek and develop systems and structures that make them more adaptable to change can help organisations exploit market opportunities that may not be visible to competitors (Jones et al. 2003; Zollo and Singh 1998). Snell et al. (1996) stressed that in dynamic environments, organisational learning may be the only way to ensure that resources sustain their value and uniqueness over time.

Extensive research has been attributed to the recognition that organisational learning is an important determinant of competitive advantage and superior organisational performance (Bhatnagar 2006; Bontis et al. 2002; De Carolis and Deeds 1999; Slater and Narver 1995). Learning can lower the costs of production and resource accumulation (Dierickx and Cool 1989), increase the reliability of the outputs of the organisation (Levinthal and March 1993), enhance the firm's internal innovation (Cohen and Levinthal 1990; Hult et al. 2004; Weerawardena 2003a), and customer value (Nasution and Mavondo 2008).

Further, existing literature shows that the development of new capabilities and the adaptation of existing capabilities to a changed environment can be viewed as a learning process (Romme et al. 2010; Teece et al. 1997; Zollo and Winter 2002). The formation of dynamic capabilities depends on learning mechanisms involving experience accumulation, knowledge articulation, and knowledge codification (Easterby-Smith and Prieto 2008; Keil 2004; Zollo and Winter 2002). According to Keil (2004), organisations acquire knowledge by learning through all the activities they have engaged in, which forms the basis for capability formation. After acquiring the knowledge, it is only through the learning-by-doing process that the knowledge is effectively adapted to the specific organisational context and an in-depth capability built. For a review of literature from 1992 to 2002 that studies the organisational learning and capability creation, see Zahra et al. (2006). Therefore a learning capability helps firms develop dynamic capabilities and sustain competitive advantage over time in a changing environment (Chen et al. 2009; Crossan et al. 1999; Deeds et al. 2000; Easterby-Smith and Prieto 2008; Eisenhardt and Martin 2000).

Organisational learning capability has also been stressed in relationship marketing literature and identified as a critical determinant of partnership success (Chen et al. 2009; Hamel 1991; Inkpen 1996). For instance, Jones et al. (2003, p. 337) proposed that learning ‘is the catalyst through which strategic alliances produce synergy and succeed’. Establishing business partnerships is used as a tactic in firms’ competitive strategies for enhancing organisational learning through both exploring and exploiting (Cegarra-Navarro 2005; Eisenhardt and Schoonhoven 1996). Learning has significant effects on transferring, transforming, and harvesting of knowledge between partners. Access to external resources and capabilities facilitates firms to learn and develop new capabilities (Cegarra-Navarro 2005; Hitt et al. 2000, 2001) since both partners normally have explicit learning intent, including successful experience, specific expertise, equipment operation skills, and so on (Chen et al. 2009). Less resource-endowed firms may desire to learn new technical and managerial capabilities, whereas more resource-endowed firms tend to learn market knowledge and customer knowledge (Khanna et al. 1998). In addition, business partnerships provide opportunities for formal and informal face-to-face interactions between partners that assist inter-organisational learning in a social context. This interactive learning often has a higher probability of producing a competitive advantage because it allows the transfer of tacit knowledge (Lane and Lubatkin 1998).

However there can be detrimental asymmetry in the inter-partner learning process or a learning race (Inkpen and Tsang 2005; Kale et al. 2000; Taylor 2005). According to Taylor (2005), this asymmetry depends on the degree of learning readiness. Learning readiness refers to the willingness of a partner to share and learn, the degree of partner’s absorptive capability, openness of a firm to its partners, and the degree of complexity of the knowledge partners seek. Firms with higher level of learning readiness display higher learning performance than partners. The quicker and more the firm learns than its partner, the more private profits the firm gains from the partnership, because the firm can apply the knowledge into other activities outside the partnership business field while the partner is still catching up (Kale et al. 2000; Khanna et al. 1998). If the learning asymmetry exists between

the partners, the dependence on partners may reduce and instability of partnership occurs. Therefore, a firm's learning capability can impact the partnership performance and the potential benefits firms can gain from the partnership.

Organisational learning capability is far more important in transitional economies than in developed countries since the tremendous amount of environmental turbulence necessitates more effort on organisational learning (Luo and Peng 1999). When the market is in high turbulent conditions, the perceived need for change and innovation are likely to be high, and thus the level of organisational learning to respond to the environment is required to be high. Thus, it is hypothesised that:

Hypothesis 9: *Learning capability is positively associated with firm performance.*

2.8.5 Technological Capability

Technological capability is a variety of knowledge, skills, experience and information which firms need to acquire, assimilate, use, adapt, change and create technology (Mursitama 2006). Specifically, technological capability includes technological knowledge, trade secrets, practical and theoretical know-how, methods, procedures, experience, physical devices and equipment, and other technology-specific intellectual property (Lee et al. 2001b) or patents protected by law (Hsieh and Tsai 2007). It determines the firms' ability to design and provide a physical product with certain features (Danneels 2002).

Technological capability includes the knowledge and skills embedded in people and knowledge embedded in organisational technical systems. Technical systems are routines of accumulating, codifying and structuring the tacit knowledge embodied in people over time that can be institutionalized and guide strategic decision-making (De Carolis 2003). It represents the heterogeneous technical assets of a firm, which are closely related to product, design, process and information technologies (Wang et al. 2004).

Technological capability facilitates an organisation's knowledge-intensive ability to jointly mobilize different external scientific and technical resources so as to successfully develop innovative products and/or productive processes (Cohen and Levinthal 1990; Garcia-Muina and Navas-Lopez 2007). As a result, organisations with a strong technological foundation are better able to identify, convert and exploit new technological knowledge than those with a weak technological base (Tsai and Hsieh 2009). Upgrading knowledge embedded in individual and organisational systems leads to the transformation of knowledge into designs and instructions for the creation of desired firm outcomes. Thus, technological capability is a driving force of innovation and can lead to product and process improvement, increase in productivity as well as reduction in operational costs (Barney 1991; Coombs and Bierly 2006).

Technological capability includes a large knowledge component that is usually implicit in experiences and skills (Afuah 2002). Due to its intangibility, technological

capability is difficult for competitors to identify and imitate (Danneels 2002). For instance, technological capabilities such as patents or proprietary designs do not easily diffuse across a firm's boundaries and are affected by differences in industries and demand patterns (Luo 2000b). Further, the competitive advantage accruing from a firm's technological capability have a high degree of causal ambiguity because firms without similar technical skills are unable to make the same product and process improvements.

Findings of prior studies indicated that technological capability has significant effects on firm performance. For instance, the case study of Kim (1997) indicated that a production firm can rapidly grow to become an international competitor through the enhancement of technological capability. Jonker et al. (2006) found that the improvements of technological capability at machine level contributes to the economic performance. Lee et al. (2001b) study of small and medium start-up businesses in Korea showed strong support for the positive relationship between technological capability (the number of patents) and sales growth. In a empirical test in China with 248 organisations, Wang et al. (2004) contended that technological competencies is one of the three (with marketing and integrative competencies) major constituents of core competencies of the firm that significantly contributes to firm performance. Further, Franco et al. (2006) claimed that higher level of technological capability enhances the probability of firm survival.

A firm with a high level of technological knowledge is better able to create and deploy the value of partnerships (Caloghirou et al. 2004). As the increase of competition intensity and technological complexity, firms no longer depend on internally-developed technologies and skills to enhance and sustain their competitive advantage. By establishing partnership, firms can gain access to the external specialized technological skills, that are usually tacit and cannot be easily copied through simple observation (Tsai and Hsieh 2009). In addition, in inter-firm collaborations, firms need a certain level of technological skills to effectively explore and exploit the external knowledge and expertise and incorporate them into their own technological innovation (Kim and Song 2007; Mowery et al. 1996).

In emerging markets like China, usually firms have a relatively lower level of technological capability than firms from developed markets (Svetlicic and Rojec 1994). Thus they are not able to develop advanced and sophisticated products in sufficient quantity and quality as those firms in developed markets. In order to compete with technological leaders in global markets, there is a necessity for Chinese firms to establish business collaborations to access the cutting-edge technologies (Zahra et al. 2000; Zahra and Nielsen 2002). Besides the fact of time-consuming, internally developing technologies is even tougher in China due to the absence of property rights and institutional regimes (Luo 2000b). Therefore, partnering with technological leaders can help firms rapidly improve technological capability to overcome their deficiencies in innovation and product development in China (Hitt et al. 2000; Zahra et al. 2000). Hence, it is proposed that:

Hypothesis 10: *Technological capability is positively associated with firm performance.*

Section III: Integrative Capability and Relational Capabilities

2.9 Introduction

After identifying potential partners with useful resources, the next step is how firms develop organisational processes to transfer and internalize these resources and capabilities. According to Helfat et al. (2007), firms create value from their partnerships only if they purposefully focus on creating an idiosyncratic combination of resources and capabilities. However, firms differ in their ability to effectively manage partnerships that create value and help achieve organisational objectives. Relational rents can be derived from four aspects of the relationship: creation of relationship-specific assets, access to complementary capabilities, substantial flow of knowledge between partners, and the presence of effective governance mechanisms (Helfat et al. 2007).

Following this concept, we propose that integrative capability and relational capabilities are the two different but complementary factors that enable firms to generate relationship rents. Integrative capability captures the dimensions of inter-firm coordination, identify and combine complementary and compatible resources and capabilities that optimise the effectiveness and efficiency of resource utilisation in both partnering firms. Relational capabilities focus on the informal safeguards to protect firms' interests from partners' opportunistic behaviours and facilitate the achievement of partnership objectives. RBV emphasises proprietary resources hence using purely RBV to explain the sharing of proprietary resources in business partnerships, places the organisational resources at risk of leaking to the partner. Thus, by incorporating a relationship marketing perspective, the inter-firm integration and effective governance address the concerns of leakage or misappropriation of proprietary resources (Helfat et al. 2007).

2.10 Integrative Capability

Once useful organisational resources and capabilities are identified and accessible in business partnerships, firms then need to have specific organisational routines that make the best use of these resources and capabilities to achieve a synergy. Merely possessing useful resources does not guarantee the development of competitive advantage (Barney and Arikan 2001; Sirmon et al. 2007). External resources, that are not characterised by scale economies in application, cannot be readily used, and that are organisational specific, cannot create any competitive advantage unless integrated with internal resources through a dynamic process (Chen and Chen 2003).

Indeed, value is created only when resources are appropriately combined, manipulated, and deployed within the firm's environmental context (Lippman and Rumelt 2003; Sirmon et al. 2007; Sirmon and Hitt 2003). By pooling internal resources and capabilities with those of other companies, firms can initiate projects that they could not have successfully done alone (Chung et al. 2000). Resource integration is critical to value creation because fully utilising available resources is at least as important as possessing them (Lockett et al. 2009; Penrose 1959). For effectively transferring resources and knowledge, inter-organisational processes need to be developed and institutionalised. While many studies in the field of business partnerships emphasise learning, very few focus on the actual processes through which knowledge may be transferred and integrated (Helfat et al. 2007).

According to RBV, resources and capabilities that can be a source of competitive advantage demonstrate characteristics of heterogeneity and immobility (Lockett et al. 2009). While the importance of integration has been widely recognised in business partnerships, it is not always easy to achieve given the characteristics of resources and capabilities (Morris et al. 2005). Without a strong integrative capability to internalise the externally sourced resources, the objectives of partnerships cannot be achieved.

Lawrence and Lorsch (1967, p. 4) conceptualised integration as a 'process of achieving unity of effort', thus integrative capability is management's ability to achieve that unity of effort in business partnerships. Verona and Ravasi (2003) referred integrative capability to the capacities of shaping and managing a context that stimulates latent and dispersed resources or capabilities, so they can jointly contribute to the firm performance. Mitchell (2006) defined integrative capability as having two dimensions: the ability to import external resources and the ability to synthesise internal resources. The main function of integrative capability is to help achieve positive interaction among different components of resources and capabilities by matching them into comprehensive sets of value-creating organisational skills (Hamel and Prahalad 1994); meanwhile, enhancing the strategic alignment and fitness of components with external environmental factors (Wang et al. 2004). Integrative capabilities are not new to literature. Other terms used to describe the similar concepts such as the 'combinative capabilities' (Kogut and Zander 1992), 'architectural competence' (Henderson and Cockburn 1994), and 'core competencies' in Prahalad and Hamel (1990).

Integration involves three important dimensions: coordination, selection and combination (Zahra et al. 2006). Coordination includes formal and informal efforts to resolve disputes, disagreements, or conflicts about the nature and scope of capabilities to be built and how to obtain needed resources (Zahra et al. 2006). Selection induces coherence through the identification of capabilities that are worthy of further refinement and development. The combination of these different capabilities occurs once coordination and selection have occurred. Following this concept, three important dimensions are proposed in inter-organisational integration in this study: inter-organisation coordination, identify and combine complementary resources, and compatible capabilities.

2.10.1 Coordination

Coordination reflects the mutual recognition by functional units of their strategic interdependence and the need to align goals for the benefit of both organisations (De Luca and Atuahene-Gima 2007). Inter-firm coordination is an important element in achieving partnership success. However, coordinating resources and capabilities, particularly those that are specialised and complex among different units and organisations, is problematic for firms, even when perfect goal congruence or willingness of collaboration is established among them (Grant 1996). This is because the flow of information within each firm can be very different based on its organisational structure, information systems, degree of centralization and culture (Helfat et al. 2007).

Integrative capability reflects the structures and processes through which different resources and capabilities are integrated to realise common goals and objectives. Effective integration requires high coordination inter and intra-organisationally (De Luca et al. 2010; Helfat and Raubitschek 2000). The ability to integrate different resources requires a shared perspective of problem-solving that permits existing resources to be combined and reformulated to produce new insights and solutions (Mitchell 2006).

High coordination between partnering firms helps develop effective communication to overcome incompatibilities of organisational structure in the process of transferring resources. Inter-firm communication involves the dissemination of information concerning partnership-related activities as well as early warning signals of tension or conflict (Helfat et al. 2007). It helps firms understand mutual objectives and the means to reach those objectives (Mitchell 2006). Where organisational departments hold specialized resources and capabilities, inter and intra-organisational linkages are the primary means of transferring resources and capabilities (Tsai 2001). Such transfer permits resources to be reused and recombined and subsequently stimulate organisational innovation (Atuahene-Gima 2005).

2.10.2 Complementary Resources and Capabilities

A number of researchers indicate that one of the main driving factors of business partnership formation is the resource fit between potential partners (Das and Teng 2000; Gulati and Gargiulo 1999). As Seabright et al. (1992) stated partner selection is determined by the fit between one organisation's resource needs and another's resource provision, relative to an opportunity set. In literature, resources alignment between partners is mainly discussed in a complementary or supplementary (compatible) pattern—that is, bring in dissimilar or similar resources, assuming that the resources brought by partners are strategically valuable and fully utilised to contribute to sustainable competitive advantage and firm performance (Hill and Hellriegel 1994).

Complementarity in resources and capabilities is the most widely acknowledged type of alignment in business partnerships (Chung et al. 2000; Harrison et al. 2001).

Complementary resources are defined as the degree to which firms in a partnership are able to eliminate deficiencies in each other's resources portfolio by supplying distinct capabilities, knowledge, and other entities (Lambe et al. 2002). Kale et al. (2000) explained that complementarity between partners refers to the lack of similarity or overlap between their core businesses or capabilities. The lower the similarity, the greater the complementarity (Mowery et al. 1996). Dyer and Singh (1998) defined complementary resource endowments as distinctive resources of partners that collectively generate greater rents than the sum of those obtained from the individual endowments of each partner. Thus, complementary resource endowments have been stressed in the formation and management of business partnerships and widely discussed as a key factor driving synergistic outcomes in partnerships (Emden et al. 2006; Harrison et al. 1991; Olk 2002).

According to Dyer and Singh (1998), combined resources and capabilities can be more valuable, rare, and difficult for rivals to imitate than before. When appropriate complementary assets are strategically integrated, a firm's core competencies can be enhanced (Lin 2006) and idiosyncratic resources can be produced to create synergistic outcomes that drive competitive advantage (Lambe et al. 2002). By doing so, firms can initiate and perform on projects that they could not have done alone and obtain stronger competitive positions than operating individually.

Complementary resources strategically offset the weakness of resources endowment in each partnering firm who is specialists on specific fields, and thus improve their overall resources portfolio (Hamel et al. 1989). As a result, it enhances firms' ability to seize new market opportunities and develop social capital (Chung et al. 2000; Hitt et al. 2004). Business partnerships often are sought because firms desire to enter a particular business, but lack the requisite capabilities to do so (Hoskisson and Busenitz 2001). In the global economy, partnering firms rely on external complementary resources to exploit environmental opportunities such as entering into new markets, developing new products or services, improving customer satisfaction etc. (Harrison et al. 2001). Further, the availability of complementary resources and capabilities creates potential opportunities for inter-organisational learning (Harrison et al. 2001; Hoskisson and Busenitz 2001). The transferred knowledge that is usually cognitive and behavioural skills, tacit and socially complex contributes to firms' competitive advantage (Harrison et al. 2001). Besides, the knowledge learned from partnerships can be internalised and applied to a firm's private activities outside the partnerships (Khanna et al. 1998), which further increases the learning motivation.

Complementary resources and capabilities also help develop interdependence between partners (Parkhe 1991). As noted by Johnson et al. (1996), resource complementarity involves uniqueness and symmetry. Uniqueness enhances partnership viability while symmetry creates partner interdependence by a balanced share of unique strengths. The more benefits symmetrical resources contribute, the more the firms will rely on partners to defend and compete with competitors. Meanwhile, with the growth of interdependence between partners, this resources-based dependence represents a mutual safeguard that is likely to result in reciprocal commitment and reduced possibility of opportunistic behaviour (Morgan and Hunt 1994). Consequently, it enhances the joint incentive to create relationship capital in the

collaboration (Oliver 1990). Thus, resource-interdependent partners are more willing to invest requisite resources into the relationship to make it a success (Sarkar et al. 2001).

In conclusion, complementary resources and capabilities are widely acknowledged as an indispensable element driving synergistic partnership outcomes (Chan et al. 2004b; Dyer and Singh 1998; Emden et al. 2006). However, the presence of complementary resources alone does not always lead to positive results in strategic partnerships. There is also a need for compatible resources and capabilities (Caloghirou et al. 2003; Das and Teng 2000).

2.10.3 Compatible Capabilities and Culture

It is argued that compatibility between partners is also an important aspect of fit that affects partnership success, although its benefits have not been recognised as broadly as complementarity in literature (Das and Teng 2000). Compatible resources and capabilities share similarities in nature, such as compatible operating strategy, corporate cultures, management styles, nationality, and even firm size (Kale et al. 2000). The most widely used conceptualisation of inter-firm diversity in terms of compatibility refers to cultural and operational compatibility (Parkhe 1991). Cultural compatibility refers to the congruence in organisational philosophies, goals, and values, whereas operational compatibility addresses the extent of congruence in procedural capabilities—the way of managing resources (Sarkar et al. 2001).

Prior research shows that a primary reason of partnership failure is not that two firms do not possess complementary resources, but rather because they do not have compatible operating systems, decision-making processes, and cultures (Wilkinson 2008). Cooperation effectiveness and efficiency are derived from systems and cultures that are able to facilitate coordination and reconciliation of differences between partners (Dyer and Singh 1998). In addition, compatibility between the partners allows the firms to actually capitalise the learning potentials offered by the complementarity. Thus, scholars argue that the potential to create benefits from complementary resources and capabilities is conditioned on the compatibility in their operational systems and culture (Doz 1996).

Compatible capabilities sharing similarity in nature, when combined together, can create greater value than the sum of separate values of the capabilities possessed by individual firms (Das and Teng 2000). The joint value can be economies of scale and scope, reduced risks, stronger market power, and more powerful entry deterrence towards potential rivals etc. Jap (1999) also observed that similarities in competencies can make partners feel comfortable, because there are relatively few uncertainties in understanding the processes and nature of the other party's competencies. Consequently, objectives, perspective, and orientation can be made easily, saving valuable time and efforts. Moreover, the congruence in norms and procedures—the way of doing things—enhances effective mutual communication and knowledge exchange that can motivate both partners to work toward common goals (Emden et al. 2006).

Compatible capabilities and culture also facilitate the development of behavioural aspects of business partnerships, as a result enhances cooperation outcomes and value creation (Cullen et al. 2000; Morgan and Hunt 1994; Smith and Barclay 1997). Compatibility among partners may help firms prevent conflicts and suspicions derived from differences in organisational values and operational process. From a role theory perspective, organisational differences may hinder role socialisation (Solomon et al. 1985), thereby impair a partner's ability to judge another's trustworthiness. In the contrast, compatible values enable firms to share similar social norms and moral attitudes, serving as a means for mutual behavioural control, and increasing mutual understanding and relational quality in business partnerships (Das and Teng 1998). This in turn creates greater levels of tolerance through 'social glue that helps to tide over temporary periods of disequilibrium' and thus enhances the stability of relationships (Madhok 1995).

However, Sarkar et al. (2001) found that operational compatibility has a negative direct impact on information sharing and knowledge transfer between partners. Sharing similar technology and skills is likely to increase the absorptive capacity of partners (Cohen and Levinthal 1990). Accordingly, in order to protect themselves from redundancy, firms may be reluctant to pass information and knowledge that is considered to be critical to partners. Thus, partners may become protective over resources, especially when their competitive advantage relies on these resources (Hamel 1991).

The culture compatibility of business partnership is even more important in China than western countries. Chinese culture emphasises collectivism, harmony, 'saving face' and avoidance of conflicts (Hofstede 1999). Saving face refers to avoiding being disgraced or humiliated. Chinese managers are likely to avoid solving conflicts or problems straightaway for the sake of the partner's face. Thus the low level of cultural compatibility might reduce the effectiveness of cooperation in China. Overall, it is suggested to choose partners who possess necessary complementary resources and a certain level of compatible operational systems and culture (Dyer and Singh 1998; Wilkinson 2008).

2.10.4 Integrative Capability and Firm Performance

The division of work in society results in a division of knowledge. Dispersed knowledge or resources have limited value in terms of knowledge scope and breath. They need to be jointly utilised by organisational routines or processes through internal or external social relationships to be productive. As Douglass North, a Nobel prize-winner in economics summarises that:

Because the division of labour produces a division of knowledge and different kinds of knowledge are organized in different ways, the coordination of knowledge requires more than a set of prices to be effective in solving human problems. The implication is that the institutional structure will play a critical role in the degree to which diverse knowledge will be integrated and available to solve problems as economics become more complex (2005, pp. 72–73).

Integrating knowledge to perform discrete productive tasks is the essence of organisational capability (Grant 1996). Integration can occur at all levels of organisational capabilities building, from basic capabilities for single task, to complex capabilities dealing with specialized activities such as manufacturing capabilities, and to firm's core capabilities which need cross-functional integration such as new product development capabilities and quality management capabilities (Grant 1996; Sirmon et al. 2007). The goal of integration is to combine resources and capabilities in new ways that develop new ideas and skills or in ways difficult for competitors to observe and duplicate. Thus, a superior integrative capability facilitates the development of creative and flexible capability configurations and enables a firm to offer unique and innovative value to customers (Alvarez and Barney 2004; Yeoh and Roth 1999). By integrating past and new resources over time, a firm's resource base is upgraded and expanded in line with external environmental conditions, subsequently a firm's competitive advantage can be sustained over time (Grant 1996; Henderson and Cockburn 1994; Wang et al. 2004).

Findings of prior studies support the importance of integrative capability on superior firm performance. Thomas and Ramaswamy (1996) reported in his longitudinal study of 200 industries that managers' ability to reconfigure and integrate existing knowledge is a key determinant of innovation success. Kogut and Zander (1992) noted that the synthesis and application of new and existing knowledge have a positive influence on performance. Mitchell (2006) empirically tested integrative capability and found it directly impacts project performance. Yeoh and Roth (1999) investigated biotechnology and pharmaceutical companies and found that integrative capability influences the product differentiation and company globalisation, leading to sustained competitive advantage. Verona and Bocconi (1999) also posited that integration both internally and externally helps firms achieve superior process efficiency and product effectiveness, which contributes to firm performance.

Moreover, integrative capability itself is argued as a dynamic capability that is a source of firm's sustained competitive advantage (Eisenhardt and Martin 2000; Teece et al. 1997; Wang and Ahmed 2007). In conclusion, based on the theoretical foundation and empirical implications, it is hypothesised that:

Hypothesis 11: *Integrative capability is positively associated with firm performance.*

In the era of popularised business partnerships, integrative capability has been seen as important in developing new capabilities and enhancing firm performance. It is not resources or capabilities but rather their integration that ensures competitive advantage (Grant 1991, 1996). Integration lies at the foundation of the competitive capabilities that firm must acquire to achieve and explore the competitive advantage in synergy.

Integration in business partnerships enables firms to efficiently utilise its resources and capabilities. There is always a lack of perfect correspondence between the firm resources base and its set of products, which results some resources and capabilities may be inefficiently exploited while others are lacking in the process of producing products (Grant 1996). Integration in business partnerships thus acts as an effective mechanism to combine any related resources and capabilities of

partners and apply them to business fields maximising the effects of resources and capabilities (Roy and Roy 2004). This efficient utilisation may result in developing new application of existing knowledge (Grant 1996; Kogut and Zander 1992), new capabilities (Henderson and Cockburn 1994; Sirmon et al. 2007), new products (Clark and Fujimoto 1991), exploiting economies of scale and scope (Roy and Roy 2004), strengthening existing capabilities and firm's resource portfolio, and creating synergy among complementary resources (Sarkar et al. 2001; Sirmon et al. 2007).

Strong integrative capabilities also can establish first-mover advantage by enabling firms to internalize different resources and capabilities in business partnerships in a timely manner (Grant 1996). Even if business partnerships are not a perfect mechanism to transfer tacit knowledge compared with mergers and acquisitions, but they allow knowledge to be transferred and integrated within a comparatively short time. Assets are embedded in firms' organisational position, organisational routines, and social capitals (Teece et al. 1997). They are built over time by systematic investment and linked to superior competitive advantage. The more depth and specificity of knowledge or resources, the more the need for integration to connect knowledge to performance (De Luca and Atuahene-Gima 2007). As mentioned before, the combination of assets manipulated by integrative capabilities is potentially unique and non-imitable and can earn positive abnormal rents on investment (Kale et al. 2002; Roy and Roy 2004).

Further, effective integrative capability can reduce the level of uncertainty and ambiguity in resource exchanges, thus enhancing the effectiveness of resources and capabilities combination on firm performance (De Luca and Atuahene-Gima 2007). The transfer and flow of resources among interdependent firms is often costly, ambiguous and uncertain due to the diversity of backgrounds, experiences and expertise (Grant 1996). This may hinder the likelihood of novel recombination and integration of resources between firms. Integrative capability developed from cross-unit or cross-firms interactions helps relieve the tension of uncertainty and risk. Therefore, integrative capabilities are seen as having a significant and positive effect on managing partners' resources and capabilities to create superior performance outcomes. Hence, it is proposed that:

Proposition 3. *Integrative capability mediates the relationship between organisational resources and firm performance.*

Proposition 4. *Integrative capability mediates the relationship between organisational capabilities and firm performance and the development of new capabilities.*

2.10.5 *Integrative Capability and the Development of Dynamic Capabilities*

Developing dynamic capabilities involves organisational processes of reconfiguring existing competency base, shedding obsolete and developing new capabilities (Teece et al. 1997). In the process of capability development, transformation and evolution,

the central role of managers' willingness to change and choice of new capabilities are important (Helfat et al. 2007; Zahra et al. 2006). Developing dynamic capabilities is costly and risky. The cost involves the consumption of resources in devising new capabilities and reconfiguring existing ones. Risk and uncertainty involve whether the managerial decisions to change and direction of change are needed, and the potential failure of developing and/or utilising new capabilities.

Effective integrative capability helps a firm overcome the fear of change (Zahra et al. 2006). The ability to combine multiple capabilities in a coherent fashion can minimise redundancies and ensure the effectiveness of resources deployment (Zahra and Nielsen 2002). The essence of integration skill is combining new capabilities and developing capabilities reconfiguration at minimum cost and in a timely manner, thereby increasing the propensity of managers' decision to enact reconfiguration processes. With the effective integration skills and availability of useful resources and capabilities in business partnerships, firms are able to develop higher-level of capabilities (Grant 1996) and idiosyncratic capabilities than individually possible (Helfat et al. 2007).

By integrating complementary capabilities, firms are able to achieve a balance of different strengths which helps firms cope better in turbulent environment (Vazquez-Bustelo et al. 2007). Firms with well-developed integration skills proactively respond to external market changes better than their counterparts (Yusuf et al. 1999). The superiority accruing from integration skills can be found in a range of competitive capabilities including responsiveness, adaptability, customer relationships, new product innovation (Adeleye and Yusuf 2006; Zahra et al. 2006). Therefore, it is proposed that:

Proposition 5. *Integrative capability mediates the relationship between organisational capabilities and the development of dynamic capabilities.*

2.11 Relational Capabilities

In business literature, relational capital in long-term business relationships is widely recognised as an important resource for developing competitive advantage (Crosby et al. 1990; Palmatier et al. 2006, 2007). The concepts of relationships and relational exchange, as well as the issues of why and how companies can develop and govern inter-partner relationships to gain superior performance, are widely addressed. Yet most attention is given to the relationship itself between the players, while knowledge about how relational factors affect relational exchange remains rather insufficient (Rokkan and Haugland 2002).

A good relationship with influential business players can be considered as a relational resource, referred to 'social capital' (Ahuja 2000; Griffith and Harvey 2004), 'relational capital' (Kale et al. 2000), or 'relationship capital' (Sarkar et al. 2001). In this study, the term used is relational capabilities to describe the processes of developing and building relational capital. Relational capital refers

to the socio-psychological aspects of partnerships, more specifically those socio-psychological aspects that are positive and beneficial in partnerships. It involves the pattern of interaction that facilitates and allows for the effective functioning of partnerships on a day-to-day basis (Cullen et al. 2000). Prior research has highlighted the presence and importance of relational capabilities in partnership performance (Gulati 1995b; Kale et al. 2000; Thuy and Quang 2005). By reviewing relationship marketing literature, we identify five dimensions of relational capabilities as essential elements that generate relational advantages and help maintain close partnerships: trust, commitment, effective conflict management, loyalty and *guanxi* between managers (Athanasopoulou 2009; Cullen et al. 2000; Kale et al. 2000; Styles and Hersch 2005).

2.11.1 *Mutual Trust*

In economic exchange, trust implies a general expectation of good faith efforts by parties to honour commitments, to be honest in negotiations, and to decry opportunistic behaviour (Hosmer 1995). Similarly, trust is considered as a type of expectation that alleviates the fear that one's exchange partner will act opportunistically or as reliance on another party under conditions of risk (Nooteboom 1996). Trust also involves the ability to reliably predict the actions of the other party in a business relationship (Anderson and Narus 1990).

Trust is conceptualised as a multidimensional term (Das and Teng 2001, 2004; Madhok 1995). Madhok (1995) suggests that trust incorporating two dimensions: a structural dimension which is fostered by a mutual hostage situation and a behavioural dimension referring to the degree of confidence that partnering firms have in reliability and integrity of each other. Gulati (1995a) classified trust into knowledge-based trust and deterrence-based trust. Knowledge-based trust emerges between two firms as they interact and learn from each other to develop trust around norms of equity. Deterrence-based trust is based on utilitarian considerations which lead a firm to believe that a partner will not engage in opportunistic behaviour owing to the costly sanctions that are likely to arise. Das and Teng (2001) argued that trust involves competence trust and goodwill trust. Competence trust refers to the expectation of technically competent role performance. Goodwill dimension refers to the belief that a partner will act honestly even when the possibility for opportunism exists. This competence-goodwill conceptualisation of trust is similar to the classification of credibility-benevolent trust in other studies (Cullen et al. 2000; Doney and Cannon 1997; Voss et al. 2006). Credibility is the confidence of partner's competence and benevolence is the belief that a partner will behave with goodwill toward the partnership and the other partner.

Trust between organisations is often conceived as the agglomeration of trust between individuals, especially senior managers in organisations (Kale et al. 2000). The premise is that as firms work with each other, close personal ties are built among individual members. This history of interaction relationships helps individual

members develop trust in their counterparts (Ring and Van de Ven 1992). It is argued that although expectations of trust ultimately reside with individuals, it is possible to think of inter-firm trust in economic transactions (Gulati 1995b; Gulati and Singh 1998). Stable obligatory relationships between key individual members play an important role in the success of inter-organisational partnerships (Barney and Hansen 1994; Gulati 1999; Ma et al. 2009).

Trust has critical performance implication in business partnerships (Cullen et al. 2000). First, trust is regarded as one of the most widely acknowledged means for governing and coordinating inter-organisational exchange (Jap 1999; Jap and Anderson 2003; Morgan and Hunt 1994). Developing relationship value involves irreversible effort and transaction-specific investments, and the payoffs from such efforts may be ambiguous and along with the unpredictable partner behaviours, partnerships are conceived as risky hence the need for trust. In partnerships where inter-firm trust exists, partners are likely to have a greater awareness, or a willingness to become aware, of the rules, routines, and procedures of exchange (Gulati and Singh 1998). Inter-firm trust can provide an assurance of reduced opportunistic behaviour and perceived fair rewards from the joint effort, meanwhile it allows for bilateral governance through joint accomplishments, shared beliefs, and mutual concerns. Firms no longer consider hierarchical controls to be necessary when there is a high level of trust (Gulati 1995b; Ring and Van de Ven 1992).

Second, business partnerships with two or more companies produce a strong potential for the emergence of conflicts. Trust is the key element that can smooth cooperation processes by alleviating functional conflicts, facilitating mutual understanding and bilateral communication (Cullen et al. 2000; Voss et al. 2006). Partners who trust each other are willing to share sensitive ideas and information. They clarify goals and problems and tend to approach the relationship with a problem-solving orientation. Without trust, when conflicts occur, suspicions and opportunistic attitudes appear, cooperation effectiveness is reduced as partners are reluctant to share resources. Ultimately, differences between partner companies inhibit the creation of mutual benefits, or even result in partnership dissolution (Das and Teng 2004; Dyer and Chu 2003).

Third, trust can facilitate learning and knowledge exchange in business partnerships, both in quantity and quality. When a relationship is based upon a mutual trust, the use of monitoring mechanisms becomes less relevant. Consequently, the resources free from investments in monitoring devices can be invested in building extensive communication (Zaheer et al. 1998). In addition, trust may facilitate the exchange of tacit knowledge and specific or confidential information in business partnerships as the perceived risk of opportunism diminishes (Kale et al. 2000).

Lastly, trust is the antecedent of emergence of commitment in relationship management (Cater and Cater 2010; Voss et al. 2006). Delerue-Vidot (2006) suggested that relationships with high trust are so valuable that parties will want to commit themselves to such relationships. Commitment is a partner's intention to remain in the relationship (Anderson and Weitz 1992). Two-dimensional commitment is introduced in literature (Geyskens et al. 1996). Calculative commitment emerges from evaluations, expectations, and concerns about the future potential for gaining rewards in and from a partnership. Affective commitment involves the extent of the partner's identification with the partnership and internalization of partnership values

and goals (Voss et al. 2006). When competence trust exists, a firm considers its partner possesses required expertise and resources and believes that the partner will reliably use and apply them to partnerships activities. A firm may commit to invest more resources to pursue higher cooperation reward, which may result in the emergence of calculative commitment. Besides, belief in a partner's goodwill can result in strong identification and bonding at a deep affective level, that is affective commitment. It means giving extra effort to make the venture work and a willingness to go beyond mere contractual obligations (Cullen et al. 2000).

2.11.2 *Commitment*

Commitment is defined as the desire to continue the relationship and to work to ensure its continuance (Wilson 1995). This enduring desire to maintain a relationship involves a long-term orientation (Mohr and Spekman 1994) such that partners restrict their search for alternatives and forego better short-term options in favour of strengthening an ongoing relationship. It reflects a firm's willingness to make short-term sacrifices in order to realise long-term benefits for the relationship (Morgan and Hunt 1994) and may involve emotional bonds, caring about the fate of the other party (Anderson and Weitz 1992). Commitment in a business partnership is associated with motivation and involvement, effective cooperation (Morgan and Hunt 1994), perception of equity (White and Siu-Yun Lui 2005), firm performance (Clercq and Sapienza 2006; Sarkar et al. 2001; Wu and Cavusgil 2006), and partnership success in terms of satisfaction (Mohr et al. 1996; Mohr and Spekman 1994).

Several reasons suggest that commitment is a critical element in relationship management (Morgan and Hunt 1994; Ring and Van de Ven 1994). First, mutual commitment strengthens fundamental cooperation principle—the fair exchange in relationships (Cullen et al. 2000; Lane and Beamish 1990). Fair exchange means partners believe benefits they receive equal to their contributions. The sense of fair exchange—give and take—between partners leads to strong norms of reciprocity and thus enhances cooperation effectiveness.

Second, commitment provides a foundation for social norms governance (Mavondo and Rodrigo 2001). If a social actor, whether an individual or an organisation, becomes committed to a relationship, this implies that the actor is bound to that relationship (Fichman and Levinthal 1991). Commitment limits the mobility of the exchange partners by preventing the exploration of alternatives in order to take advantage of opportunities which would increase their reward levels and improve their positions in an exchange network. The 'lock-in' effect of reciprocal commitment promotes resources sharing and investments in relational-specific assets (Wu and Cavusgil 2006).

Third, similar to trust, commitment assists the knowledge exchange and enhances collaborative performance (Liu et al. 2009). The more the parties are committed to the relationships, the more vigorously they will undertake their roles. Given the repeated efforts and strong sense of reciprocity derived from commitment, information exchange is facilitated in intensive involvement, inter-firm learning

activities are enhanced. Accordingly, the possibility of developing new skills and competences (Dyer and Nobeoka 2000) and overall resources portfolio improvement are increased (Cohen and Levinthal 1990).

2.11.3 Conflict Management

Conflicts exist in any human relations (Eisenhardt et al. 1998; Emiliani 2003). Conflict is inevitable because no two people are the same and each person reacts differently to any given situation. When two or more people differ in their ideas, opinions, approaches, needs, interests or intentions, conflicts arise (Shetach 2009). Conflicts erode trust, reduce satisfaction with the partnership, inhibit cooperation and discourage potential investment of resources and efforts (Hempel et al. 2009). Most business relationships have some degree of ongoing human interaction, the manner in which conflict is handled becomes important (Plank and Newell 2007).

The impact of conflict resolution can be productive or destructive (Deutsch 1969), as it is noted in Wilmot and Hocker (2001, p. 3) that ‘a lot rides on your own personal ability to resolve conflict.’ Some researchers regard conflict as negative and destructive and define it as ‘a struggle over values and claims to scarce status, power and resources, in which the aims of the opponent are to neutralize, injure or eliminate the rivals’ (Coser 1967, p. 8 in Shetach 2009). In contrast, there are others who consider conflict as confronting interests or incompatible activities existing between the partners involved in social situations (Rahim 1997).

The three major conflict-management approaches proposed by Deutsch (1980) are widely accepted: cooperative, competitive and avoidance (Chen et al. 2005b; Song et al. 2006). People tend to use a cooperative approach when they recognise their common goals and view conflict as a mutual problem that needs common consideration and solution. They have high concern for others, understand that the other’s goal attainment helps them and the shared rewards of problem solving, thus, they exchange ideas frequently and develop mutually beneficial—win-win—solutions (Hempel et al. 2009). Such solutions help protagonists act productively and build up their confidence that they can work together in the future (Alper et al. 2000).

Cooperative conflict management develops a strong two-way communication to ensure the frequency and effectiveness of information and resources exchange, that form the key element of successful conflict resolution (Kale et al. 2000). Such intensive communication increases the closeness of interaction and aids learning activities and the transfer of critical information or know-how between partners. A cooperative method of conflict resolution develops the feeling of procedural justice between partners, which impact the individual’s attitudes of trust and commitment (Kim and Mauborgne 1998). As a result, cooperative conflict management requires joint problem solving that fosters close collaboration between partners, thereby it creates a favourable environment for future cooperation (Song et al. 2006). In addition, the joint monitoring processes developed by conflict management help firms monitor potential conflict situation and opportunistic attempts of partners in turn protecting each firm’s core assets from being leaked to others (Kale et al. 2000).

People may also use a competitive approach when they focus on their own goal attainment and regard conflict as a win-lose struggle. In this way, management views their goals will be negatively impacted by others' successful goal attainment and they want to use conflict to promote their goals at the expense of the others'. This competitive approach often frustrates communication and results in a deadlock or imposed solution (Chen et al. 2005a, b). Literature indicates that the extent to which protagonist takes a cooperative and a competitive approach affects the outcomes of conflict. Cooperative approach is encouraged as it leads to effective cooperation and productivity (Alper et al. 2000; Chen et al. 2005a, b; Deutsch 1980).

Avoiding is another approach to manage conflict by which managers attempt to smooth over conflicts and minimize open-discussion of them (Deutsch 1980). Despite the positive consequences of cooperative conflict management, the tendency to avoid conflict and smooth over conflict is strong in collectivist society like China (Hempel et al. 2009; Hofstede 1993). Chinese people are reported as more conflict avoidance than Americans and this difference is partly connected with their higher concern for the other party and the belief that a direct approach would hurt the relationship (Friedman et al. 2006). In collectivist society where emphasizing harmony, individuals try to control their emotions and work with others in a harmonious manner. They are highly sensitive to the possibility of losing social face in public. Thus, they try to avoid conflict so that they and their conflict partners do not fear disrespect and alienation (Cocroft and Ting-Toomey 1994).

Some scholars argue that Chinese value of harmony has two motives (Chen et al. 2005a, b). One is for maintaining harmony. People avoid conflict as a way to further their self-interest and avoid potential interpersonal problems. The other is harmony enhancement (Chen et al. 2005a). Harmony represents a high concern for feeling of intimacy, trust, compatible, and mutually beneficial behaviours. With this enhancement motive, harmony value can lead to open discussion of conflicts to strengthen their relationships, rather than avoiding conflict (Hempel et al. 2009). The sensitivity to social face helps people be openness to partners, consider the opposing views as useful, develop respect, and accept new ideas. Although avoiding conflict may be traditionally prevalent. Some studies suggested that Chinese values when appropriately applied can support the open cooperative conflict management (Tjosvold and Sun 2000, 2001). Chinese people can manage conflicts openly, cooperatively and productively (Chen et al. 2005b).

2.11.4 Relationship Loyalty

Three main streams of research in the field of loyalty can be found in literature: behavioural loyalty (Tellis 1988), attitudinal loyalty (Bennett and Rundle-Thiele 2002), and composite loyalty (Rauyruen and Miller 2007). Behaviour aspect refers to the patterns of repeat purchase to continue a relationship with suppliers from a customer perspective (Cater and Cater 2010). It also can refer to similar behaviours in the context of business partnership such as renewing the cooperation contracts

and seeking more business interactions in the future. Attitudinal aspect refers to the psychological attachments and attitudinal advocacy towards the partners, such as providing positive word of mouth, recommending this partner to others and encouraging others to have business with this partner (Bettencourt and Brown 1997). Early research only focuses on either behaviour or attitudinal aspect of loyalty. A composite approach to loyalty should be adopted to fully explain the concept of the construct (Cater and Cater 2010). Therefore in line with composite approach, developing relationship loyalty involves not only maintaining partners overtime, but also encouraging advocacy and more business exchanges in the future (Rauyruen and Miller 2007).

Loyalty is related to but different from commitment. Commitment refers to a motivation and an attitude to continue a relationship, while loyalty is a mixture of attitude and behaviour more often defined as repeat patronage and referral behaviour (Cater and Cater 2010). Prior studies investigated the relationship between commitment and loyalty and proposed that commitment is an antecedent to loyalty (Bansal et al. 2004; De Ruyter et al. 2001).

Developing loyalty is a long-term investment that has potential to reach a high level of profitability stemming from repeated interaction pattern of business partners (Rauyruen and Miller 2007). A loyal partner is emotionally attached and desires to continue the partnership, thus loyalty can strengthen the relationship quality and stability (Geyskens et al. 1996). In a partnership with low loyalty, firms are more likely to choose to terminate the current relationship when a 'better' partner that can provide more profits becomes available. High loyalty reduces a firm's tension on structural mechanisms to calculate economic return and the risk associated with continuing the relationship (De Ruyter et al. 2001). With high loyalty, firms are more willing to provide care and favour and altruistically behave toward the partner (Lee et al. 2008). Firms may sacrifice short-term benefits for long-term objectives to ensure the partnership continuity (Gilliland and Bello 2002). When conflicts arise, firms choose to engage in cooperative communication to help maintain the partnership rather than exit (Liu et al. 2009).

In addition, well-nurtured loyalty signifies a mature stage of partnership development, partners are willing to invest more specific assets to consolidate the partnership performance (Rokkan et al. 2003). This further reduces the likelihood of partners' opportunistic behaviours and save cost of monitoring the transactions. Moreover, a loyal partner can play a referral role in their networks that can help firms develop favourable reputation as a reliable partner and increase opportunities to establish future business partnerships.

2.11.5 Guanxi Between Senior Managers

In relational marketing, business exchange is conceptualised as a cooperative process where mutual exchange and fulfilment of promises takes place (Wilkinson and Young 2002). This is particularly apt in a Chinese context, where business

relationships are *guanxi* (pronounced gwan shee) based (Mavondo and Rodrigo 2001; Wong and Chen 1999). As the development of organisational network theory in Western countries, *guanxi*—a Chinese term referring to interpersonal relationships—has also received a great deal of interest in business research. Although *guanxi* literally means a relationship between two parties, when referring to interpersonal relationships, *guanxi* refers to the establishment of a connection between two individuals (Yeung and Tung 1996).

Guanxi is identified as one of the most important success factors in doing business in China (Peng and Luo 2000; Szeto et al. 2006; Yeung and Tung 1996), and even regarded as the future direction for the western business practices in the new century (Lovett et al. 1999). ‘China is a land of *guanxi*...nothing can be done without *guanxi* (Tsang 1998, p. 5)’. Chu and Ju (1993) surveyed 2,000 people in Shanghai and found that over 92 % of the respondents confirm *guanxi*’s importance in their daily life. A report from the Hong Kong Independent Commission Against Corruption indicated that, during the late 1990s, outright payments and gifts for establishing *guanxi* in China averaged 3–5 % of the operating costs, amounting to an annual figure of approximately US\$4 billion (Szeto et al. 2006).

Osland (1990) defined *guanxi* as a special relationship between a person who needs something and a person who has the ability to give that something. Lee et al. (2001a, p. 52) referred to *guanxi* as ‘a particularized and personalized relationship based on the reciprocal exchange of favours.’ Fan (2002) explained that: *guanxi* is a special relationship between two persons but how special of the relationship depends on the nature of the relationship; *guanxi*, as a connection, is live, dynamic and working; *guanxi* is a reciprocal exchange of favours between two persons; and *guanxi* is the pre-planned process of social interactions that initially involves two individuals but may involve more parties at later stage to get things done. Undeniably, the term *guanxi* in Mandarin takes on multiple meanings. The common general idea across the definitions is that all of them refer to a certain type of interpersonal relationship, that is personal and built on certain criteria. Jacobs (1979) suggested that a base for a *guanxi* exists when two or more persons have cohesion of shared attributes, identity, or origin.

Guanxi is fundamentally about individual relationships, a personal possession (Fan 2002). An organisation can benefit from *guanxi* only when an individual is willing to use personal *guanxi* for organisational objectives (Standifird 2006). People who involve in *guanxi* are committed to each other by social norms of reciprocity and social obligations (Luo 1997, 2000a). If an exchange partner receives a favour based on humanised obligations, the other partner is obliged to pay back the favour in the future (Lee et al. 2001a). A break in this norm will damage one’s reputation and will lead to the loss of face, and even lead to a deterioration of *guanxi* with the other party or maybe all members in that network. However, immediate favour exchange is not a form of building *guanxi*, but might be interpreted as bribery. With the establishment of *guanxi*, a person is able to access key sources of information, resources and other advantages including smoothing transport arrangements, smoothing payment collection and building up the firm’s reputation and image (Davies et al. 1995).

Further, *guanxi* is the first and foremost long-term investment into a particular relationship (Davies et al. 1995; Standifird 2006). Interestingly, the nature of *guanxi* is not personal traits and emotions as some foreign managers perceive; instead, *guanxi* is instrumental and utilitarian in nature (Fock and Woo 1998). Favour exchange and mutual cooperation are the essence of maintaining *guanxi* networks.

Intensive studies focus on how *guanxi* between key individuals (managers) are transferred to be an organisation asset, called “organisational *guanxi*” (Park and Luo 2001; Tsang 1998), and eventually contribute to firm performance (Luo et al. 2004; Peng and Luo 2000; Xin and Pearce 1996). First, *guanxi* acts as a substitute for formal institutional support because the reciprocal and obligatory social norms can maintain a social and economical order which the legal system cannot maintain. Even when the legal system exists and functions, *guanxi* functions more effectively than the institutional support (Xin and Pearce 1996; Zhang and Zhang 2006). Peng (2003) indicated that formal rules comprise only a small (although important) part of the sum of constraints in even the most developed economies. When the formal institution is not capable enough, informal constraints play a more important role in regulating exchange behaviours (Peng and Heath 1996). Due to the situation that has relatively weak capital market structure, poorly specified property rights, a lack of transparency in legal system and institutional instability, the informal regulations have more important roles in monitoring transaction behaviours in China (Li and Zhang 2007).

Second, *guanxi* contributes to transaction cost advantages and firm performance by reducing the cost in searching information and potential opportunistic behaviours (Zhang and Zhang 2006). On the one hand, managers are able to gain access to private and trustworthy information at a lower search cost from *guanxi* favour exchange partners (Luo 2003), information such as market trend, government policies and business opportunities. Luo (1997) suggested that having useful *guanxi* ensures access to the most effective marketing tool for conducting business in China. There is an increased need for *guanxi* networking to cope with the need for information gathering and processing in a complex environment due to the cost and time-consuming of information collection. On the other hand, close *guanxi* can minimise the business partners’ opportunistic behaviours owing to the social norms embedded in the *guanxi*. Opportunistic behaviours may damage or end *guanxi* and harm one’s reputation, which will impact one’s future business practices. Thus *guanxi* works as the fundamental safeguard of a relationship.

Third, *guanxi* between individuals’ can help partnering firms access to critical resources (Peng and Quan 2009). These resources include soft resources (i.e., sensitive and important information) and hard resources (i.e., material resources, financial resources, approval of business activities by the government and various inputs for business) (Davies et al. 1995; Szeto et al. 2006). For instance, entrepreneurs often need political connections to develop their enterprises, obtain licenses, and build business opportunities. Moreover, close *guanxi* between managers has potential to result in competitive advantage as it has heterogeneity determined by firms’ ownership, history, business sector, firm size, and industry growth (Peng and Luo 2000).

Fourth, close *guanxi* between managers can facilitate an open communication and joint problem-solving in business partnerships, as *guanxi*-favoured partners are willing to accept partners' ideas, offer care and favours when problems arise (Luo et al. 2004). In addition, *guanxi*-based relationship enhances the trust and commitment to the relationship owing to *guanxi*'s reciprocity and obligation, consequently links to a increased firm performance (Wang 2007; Wu and Leung 2005). Fifth, business partnerships form a platform for managers to expand their *guanxi* networks through accessing partner's network, that has a potential to increase opportunities of future business and enhance a firm's corporate reputation (Zhang and Li 2008).

Based on the above explanation, close managerial *guanxi* can be an organisational strategic asset (Tsang 1998; Zhang and Li 2008). Its benefits depend on the quantity and quality of *guanxi* (Standifird 2006). *Guanxi* is unique because of its heterogeneity (Peng and Luo 2000). Managers do not establish *guanxi* with all people and not all *guanxi* are equally beneficial to all firms. Thus, *guanxi* management is a strategic decision made by managers, based on the firm's internal resources/capabilities and external environment (Luo 2003). It shows in some studies that *guanxi* can be transferable under some circumstance, for example, two strangers become involved in *guanxi* because of their common intermediary. However, *guanxi* is a long-term investment, a dynamic process that needs constant maintenance (Fan 2002). Therefore, what is transferred is just a relationship; the quality of *guanxi* cannot be exactly transferred. Besides, *guanxi* has its imitability characteristic due to its long-term cultivation history (Tsang 1998), and its non-tradability (Geletkanycz et al. 2001).

Luo et al. (2004) investigated 262 Chinese firms and found that managerial ties with business partners are positively related to firm's strategic and financial performance. Lee et al. (2001a) provided empirical support that a firm's *guanxi* with its exchange partner positively impacts on the perception of relationship quality and interdependence, which in turn positively influences business performance in business partnerships. In Luo's (2001) mail survey of 168 multi-national enterprises, and found that establishing close *guanxi* with influential business and political players is positively correlated with a firm's local responsiveness. Other empirical studies from manufacturing industries further support the notion that *guanxi* between managers has a direct positive relationship with firm performance (Li et al. 2008; Luk et al. 2008).

2.11.6 Relational Capabilities and Firm Performance

Each dimension of relational capabilities has been examined for its relationship with firm performance. The combination of all elements in relational capabilities has a stronger influence on firm performance than each individual factor alone (Heimeriks and Schreiner 2002), because these elements influence each other and form a virtuous cycle of self-enforcement (Liu et al. 2009; Ring and Van de Ven 1994). Although different characteristics are likely to substitute for each other,

overall performance requires at least a minimum level of all dimensions to be presented. The absence of one dimension can create an interruption of the self-reinforcing cycle that may lead to partnership failure (Kumar and Nti 1998).

In relational theory literature, relational capabilities between firms are argued to be a source of a firm's competitive advantage (Barney and Hansen 1994). Arrow (1974, p. 23 in Dierickx and Cool 1989) gave a comprehensive explanation of the value of relational capital:

Unfortunately, trust is not a commodity which can be bought very easily. If you have to buy it, you already have some doubts about what you've bought. Trust and similar values, loyalty or truth telling, are examples of what the economist would call "externalities". They are goods, they are commodities; they have real, practical economic value...But they are not commodities for which trade on the open market is technically possible or even meaningful.

A partnership that generates rents requires long-term efforts and investments in building and maintaining trust, commitment, effective conflict-solving, loyalty and close *guanxi* between key individuals (Thuy and Quang 2005). Such a relationship is unique and inimitable because of path-dependence and social-complexity in nature. Therefore, relational capabilities are valuable, uniqueness, inimitable, non-substitutable relationship-specific assets that contribute to firm's competitive advantage (Cullen et al. 2000). Therefore, it is proposed that:

Proposition 6. *Relational capabilities are associated with firm performance.*

Strong relational capabilities can enable partnering firms to better and faster identify opportunities and threats in external environment than competitors by fostering timely and accurate information exchange. The capabilities learned from partners may be applied into a firm's own business activities resulting in private profits (Khanna et al. 1998). Besides, strong-developed relational capabilities, on the one hand, encourage existing partners to do more business interactions with each other in the future; on the other hand, increase the opportunities to form new linkages owing to the referrals of existing partners (Gulati and Gargiulo 1999). This further enhances the efficiency and effectiveness of resources utilisation in business partnerships.

Strong relational capabilities can create a trustful and friendship-based environment minimizing the likelihood of business partners' engagement in opportunistic behaviours (Kale et al. 2000). Consequently, they reduce the need for monitoring and transaction costs associated with an inter-organisational exchange, therefore, firms have the potential to invest more resources into collaborative activities (Gulati 1995b; Madhok and Tallman 1998; Zaheer et al. 1998). Besides, strong relational capabilities engender close interaction between partners by increasing the amount as well as the quality of communication between the parties (Clercq and Sapienza 2006), which encourages learning and know-how transfer across firms (Kale et al. 2000). The breadth and depth of knowledge exchange between the two parties improves the understanding of each other's operations and needs (Cohen and Levinthal 1990; Lane et al. 2006; Lane and Lubatkin 1998), thus improving the effectiveness and efficiency of resources deployment in collaboration

(Sarkar et al. 2001). Kostova and Roth (2002) found that successful adoption of integration practices is dependent on the existence and level of relational capabilities in partnerships.

Further, relational capabilities are important for achieving cooperative objectives as they foster fair exchange and relationship continuance when change and conflict arise (Thuy and Quang 2005). In conclusion, there is strong literature support for the importance of relational capabilities on enhancing the utilisation of resources and capabilities in business partnerships. Thus, it is proposed that:

Proposition 7. *Relational capabilities mediate the relationship between organisational resources and firm performance.*

Proposition 8. *Relational capabilities mediate the relationship between organisational capabilities and firm performance and the development of new capabilities.*

2.11.7 Relational Capabilities and the Development of Dynamic Capabilities

Strong relational capabilities enhance a firm's ability to explore and develop dynamic capabilities for many reasons: first, relational capabilities develop an atmosphere of openness to new ideas, free expression of feeling and opinions and fruitful information exchanges that leads to cross-fertilization of ideas and better managerial decisions (Eisenhardt and Bourgeois 1988). The generation of diversity and a great amount of ideas facilitate a firm's activities in searching and developing new capabilities (Danneels 2008).

In addition, with well-nurtured partnership, firms are perceived to tolerate risks and failures as firms can handle changes and uncertainties better than individually. The ability to handle higher risks allows managers to make mistake in learning and experimenting new capabilities (Zahra et al. 2006). Moreover, the rich and diverse information exchange in close partnerships enhances a firm's recognition of opportunities in new domains, such as new market and new technologies. Additionally, resources exchange in business partnerships provides firms with opportunities to develop new capabilities that might not have been possible under resource-constrained conditions (Danneels 2008). Therefore, it is proposed that:

Proposition 9. *Relational capabilities mediate the relationship between organisational capabilities and the development of dynamic capabilities.*

2.12 Section Conclusion

The preceding discussion has examined the importance of integrative and relational capabilities on firm performance in partnerships, as well as their significant role in enhancing the effect of organisational resources and capabilities on firm

performance, development of new capabilities and dynamic capabilities. This leads to the following research proposition and subsequent hypotheses:

P3: Integrative capability mediates the relationship between organisational resources and firm performance.

- H12: Integrative capability mediates the relationship between organisational reputation and firm performance.
- H13: Integrative capability mediates the relationship between financial resources and firm performance.
- H14: Integrative capability mediates the relationship between brand reputation and firm performance.
- H15: Integrative capability mediates the relationship between locational resources and firm performance.
- H16: Integrative capability mediates the relationship between human resources and firm performance.

P4: Integrative capability mediates the relationship between organisational capabilities and firm performance and the development of new capabilities.

- H17: Integrative capability mediates the relationship between manufacturing capability and firm performance and the development of new capabilities.
- H18: Integrative capability mediates the relationship between managerial capability and firm performance and the development of new capabilities.
- H19: Integrative capability mediates the relationship between marketing capability and firm performance and the development of new capabilities.
- H20: Integrative capability mediates the relationship between learning capability and firm performance and the development of new capabilities.
- H21: Integrative capability mediates the relationship between technological capability and firm performance and the development of new capabilities.

P5: Integrative capability mediates the relationship between organisational capabilities and the development of dynamic capabilities.

- H22: Integrative capability mediates the relationship between manufacturing capability and the development of dynamic capabilities.
- H23: Integrative capability mediates the relationship between managerial capability and the development of dynamic capabilities.
- H24: Integrative capability mediates the relationship between marketing capability and the development of dynamic capabilities.
- H25: Integrative capability mediates the relationship between learning capability and the development of dynamic capabilities.
- H26: Integrative capability mediates the relationship between technological capability and the development of dynamic capabilities.

P6: Relational capabilities are associated with firm performance.

- H27: Trust is associated with firm performance.
- H28: Commitment is associated with firm performance.

- H29: Conflict management is associated with firm performance.
- H30: Loyalty is associated with firm performance.
- H31: *Guanxi* between managers is associated with firm performance.

P7: Relational capabilities mediate the relationship between organisational resources and firm performance.

- H32: Relational capabilities mediate the relationship between organisational reputation and firm performance.
- H33: Relational capabilities mediate the relationship between financial resources and firm performance.
- H34: Relational capabilities mediate the relationship between brand reputation and firm performance.
- H35: Relational capabilities mediate the relationship between locational resources and firm performance.
- H36: Relational capabilities mediate the relationship between human resources and firm performance.

P8: Relational capabilities mediate the relationship between organisational capabilities and firm performance and the development of new capabilities.

- H37: Relational capabilities mediate the relationship between manufacturing capability and firm performance and the development of new capabilities.
- H38: Relational capabilities mediate the relationship between managerial capability and firm performance and the development of new capabilities.
- H39: Relational capabilities mediate the relationship between marketing capability and firm performance and the development of new capabilities.
- H40: Relational capabilities mediate the relationship between learning capability and firm performance and the development of new capabilities.
- H41: Relational capabilities mediate the relationship between technological capability and firm performance and the development of new capabilities.

P9: Relational capabilities mediate the relationship between organisational capabilities and the development of dynamic capabilities.

- H42: Relational capabilities mediate the relationship between manufacturing capability and the development of dynamic capabilities.
- H43: Relational capabilities mediate the relationship between managerial capability and the development of dynamic capabilities.
- H44: Relational capabilities mediate the relationship between marketing capability and the development of dynamic capabilities.
- H45: Relational capabilities mediate the relationship between learning capability and the development of dynamic capabilities.
- H46: Relational capabilities mediate the relationship between technological capability and the development of dynamic capabilities.

Section IV: Dynamic Capabilities

2.13 Dynamic Capabilities and Firm Performance

Existing definitions of dynamic capabilities share the idea that the core of dynamic capabilities is altering and reconfiguring there source base to overcome path dependencies and firm inertia, therefore firms are able to produce valuable offerings under conditions of change (O'Reilly and Tushman 2007). Therefore, by employing dynamic capabilities a firm can determine the nature and amount of intangible assets it will create and assemble and the level of economic profits it can earn (Teece 2007). There are many ways that dynamic capabilities increase value from the use of existing assets the firm owns: either shedding idle or decaying resources (Sirmon and Hitt 2003), or recombining resources in innovative ways that develop virtually new capabilities (Kogut and Zander 1992; Sirmon et al. 2007), or building new resources from acquisitions and strategic partnership (Ettlie and Pavlou 2006).

As mentioned in an earlier section, Zahra et al. (2006) differentiates substantive capabilities from dynamic capabilities. The development process of substantive and dynamic capabilities is presented in Fig. 2.2. The fundamental logic of this process is that the substantive capabilities the firm possesses at a time are deliberately evolved or developed by previously used dynamic capabilities, which were path-dependent on previous resource base; in the mean time substantive capabilities affect and shape the dynamic capabilities the firm currently owns (Zahra et al. 2006). Dynamic capabilities are affected and dependent on a firm's existing resource base (Newey and Zahra 2009), and they guide the resources development consistent with market needs and changes. As also explained in capability hierarchy in Sect. 2.4.1, therefore, literature indicates that organisational resources and capabilities are linked to the development of dynamic capabilities.

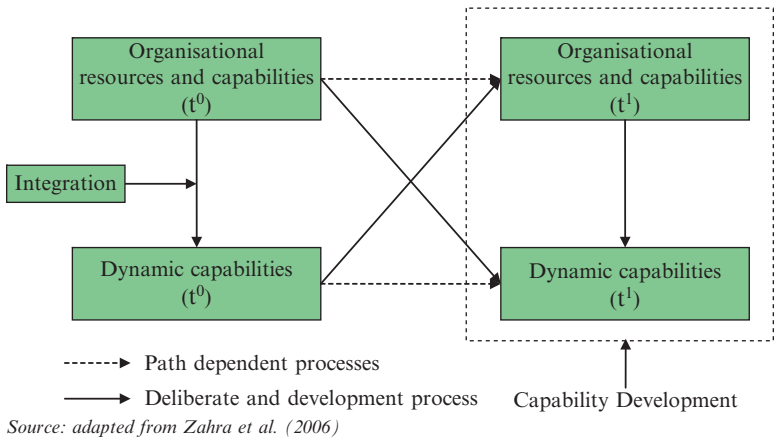
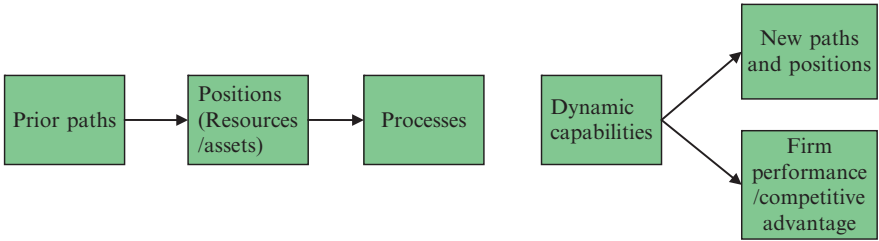
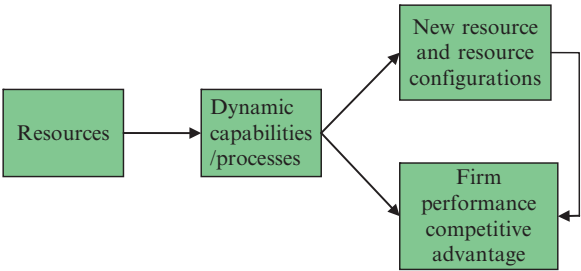


Fig. 2.2 Development process of dynamic capabilities and organisational capabilities (Source: Adapted from Zahra et al. (2006))

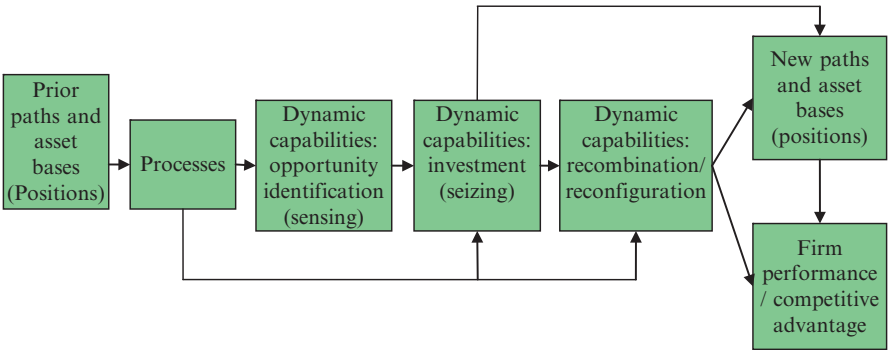
Teece et al. (1997)



Eisenhardt & Martin (2000)



Teece (2007)



Source: Adapted from Helfat & Peteraf (2009)

Fig. 2.3 Basic chain of logic in core dynamic capabilities articles (Source: Adapted from Helfat and Peteraf (2009))

Prior literature is divided about the links between dynamic capabilities and firm performance (Cepeda and Vera 2007; Helfat and Peteraf 2009; Slater et al. 2006). Figure 2.3 adopted from Helfat and Peteraf (2009) presents the links in three of the most influential papers in DCA. Some researchers have made an explicit link between dynamic capabilities and competitive advantage. Collis (1994, p. 149) suggested that ‘higher-order organisational capabilities allow firms to overcome the path dependency that led to the inimitability of the lower-order capabilities.’ Teece et al. (1997) insisted that organisational processes and opportunities are

significantly shaped by the assets position (firms tangible and intangible possesses) and the evolutionary path it has adopted (firm history, previous investment). Dynamic capabilities rest on those processes that can alter current positions, leading to an effect on firm performance and competitive advantage, as well as new positions and paths.

Following that, Griffith et al. (2006) argued that a global dynamic capability is the creation of difficult-to-imitate combinations of resource that can provide a firm competitive advantage. Lee et al. (2002, p. 734) suggested that ‘dynamic capabilities are conceived as a source of sustainable advantage in Schumpeterian regimes of rapid change.’ Teece (2007) used a chain of logic to expand upon his previous work (Teece et al. 1997). He argues that dynamic capabilities of opportunity identification (sensing) and investment in the opportunities (seizing) lead to new positions and paths, which then affect firm performance and competitive advantage; dynamic capabilities for reconfiguration alter the accumulated firm asset base further, leading to an additional effect on firm performance and competitive advantage, and to new positions and paths (Fig. 2.3).

A different opinion exists, asserting that the link between dynamic capabilities and competitive advantage is indirect (Bowman and Ambrosini 2003; O’Reilly and Tushman 2007; Zahra et al. 2006). Eisenhardt and Martin (2000) describe dynamic capabilities as processes that firms use to obtain, integrate, reconfigure and release resources, leading to new resources and resource configurations. They insisted that the ‘functionality of dynamic capabilities can be duplicated across firms, their value for competitive advantage lies in the resource configurations that they create, not in the (dynamic) capabilities themselves’ (p. 1106). Eisenhardt and Martin (2000) also concluded that dynamic capabilities are equifinal, substitutable and fungible, sharing common features across firms. However, Eisenhardt and Martin (2000) agreed with Helfat and Peteraf’s (2009) interpretation that dynamic capabilities can have a direct effect on firm performance and competitive advantage, as well as an indirect effect through resource reconfiguration (Fig. 2.3).

Scholars insisting on the second opinion hold the idea that dynamic capabilities create future resources base dictated by the firm’s overall strategy, but their development does not ensure organisational success (Zahra et al. 2006). As dynamic capabilities are highly patterned and repetitious organisational routines, the deliberate effort to build, exercise and maintain the dynamic capabilities can be expensive (Winter 2003; Zollo and Winter 2002). The development of dynamic capabilities typically involves long-term commitment to specialized resources and capabilities. The more pervasive and detailed the patterning of the activity involved, the higher the costs of the commitment (Lavie 2006; Pablo et al. 2007).

Zott (2003) argued that dynamic capabilities are indirectly linked with firm performance by aiming at changing a firm’s bundle of resources, operational routines, and competencies, which in turn affect economic performance. Similarly, Wang and Ahmed (2007) proposed that dynamic capabilities are conducive to long-term firm performance, but the relationship emerges by the mediation of capability development. Capability development differs from capability building. The former is an outcome of dynamic capabilities, can be measured by comparing the same aspects

of a firm's capabilities at different points in time; while the latter is the process of dynamic capabilities. Thus, dynamic capabilities' value is determined by the extent to which the resulting ordinary resources and operational routines are valuable to competitive advantage, as well as the quickness, acuteness and preciseness of building the required firm capabilities (Easterby-Smith and Prieto 2008).

Further, Helfat et al. (2007) stated the value of dynamic capabilities depends on whether or not they perform a function and create value, and to what degree. The value created varies with time and circumstance, as environmental opportunities change. Thus, Helfat et al. (2007) argued that dynamic capabilities do not necessarily lead to competitive advantage, as they may not create VRIN resources or currently needed resources. To cover those features of dynamic capabilities, Helfat et al. (2007) proposed two conceptual measures of dynamic capabilities. The first, technical fitness refers to 'how effectively a capability performs its intended function when normalized (divided) by its cost' (p. 7). Second, evolutionary fitness is 'how well a dynamic capability enables an organisation to make a living by creating, extending, or modifying its resource base' (p. 7).

Helfat et al. (2007) also proposed two performance measures of dynamic capabilities that complement traditional performance measures: survival and growth. Survival indicates whether a firm can adapt to its external environmental turbulence. If a firm can survive in a long term, this implies that it is successful in maintaining evolutionary fitness. Preconditioned by survival (Markman and Gartner 2002), growth refers to the extent of evolutionary fitness in the form of increased firm size over time.

Following a similar logic, Ambrosini and Bowman (2009) claimed four different outcomes may result from the deployment of dynamic capabilities. First, they can lead to sustainable competitive advantage if the resulting resource is inimitable for a long time and the returns are sustained. Second, they can result in competitive advantage that can only be enjoyed for a short period of time. Third, they may only give competitive parity if the resulting resource base simply allows the firm to operate in the industry rather than to outperform rival firms. Finally, dynamic capabilities may lead to failure if the resulting resource is irrelevant to the market.

In summary, there is strong debate regarding to the direct or indirect link between dynamic capabilities and superior firm performance. Both views will be tested in this study. First of all, dynamic capabilities are proposed to directly contribute to firm performance. Next, dynamic capabilities are also investigated whether they impact firm performance through the development of new capabilities. Further, as organisational resources and capabilities have a direct link to dynamic capabilities and dynamic capabilities are proposed to link to firm performance, thus dynamic capabilities are also proposed to mediate the relationship between ordinary resources, capabilities and firm performance.

Some scholars are concerned that the sustained competitive advantage is unlikely in dynamic markets (D'Aveni 1994; Rindova and Kotha 2001). However, it is possible to consider a firm's competitive advantage as sustainable not from a static resource base. Dynamic capabilities enable the firm to continually refresh the resource base so as to earn a series of temporary, short-lived competitive advantage

under any kind of market conditions (Eisenhardt and Martin 2000), that is creating a ‘hit a moving target’ (Ambrosini and Bowman 2009, p. 43). Thereby, given the above arguments, the propositions of dynamic capabilities are:

Proposition 10. *Dynamic capabilities are associated with firm performance.*

Proposition 11. *Dynamic capabilities mediate the relationship between organisational resources and firm performance.*

Proposition 12. *Dynamic capabilities mediate the relationship between organisational capabilities and firm performance and the development of new capabilities.*

2.14 Dynamic Capabilities

A number of studies posit that business partnerships can help firms develop new dynamic capabilities (Chen et al. 2009; Gulati 1999; Lane and Lubatkin 1998; Zollo and Singh 1998). For example, Powell et al. (1996) argued that dynamic capabilities can be developed in business partnerships particularly when the external partners possess unique knowledge resources. Four essential dynamic capabilities are identified in this study: agility, network competence, R&D competence and market orientation. The concept of each dynamic capability as well as its importance to firm performance will be examined in detail in the following sections.

2.14.1 Agility

The question of how organisations can successfully deal with unpredictable and dynamic changes in business environments has been a prevailing topic both in industry and academic circles for decades. As early as 1967, Thompson suggested that one of the most important tasks for any organisation is to manage uncertainty. Similarly, Drucker (1968) described the concept of entrepreneurial tasks as the search and response to changes, and exploitation of changes as opportunities arise. Many solutions are proposed to ameliorate the difficulties and help organisations survive, such as: flexible organisation, networking, just-in-time, adaptive organisation, virtual corporation, agile enterprise, etc.

Among solutions dealing with unpredictable and uncertain environment, ‘adaptability’, ‘flexibility’ and ‘agility’ are the three most predominant and popular notions (Sherehiy et al. 2007). A review of relevant literature indicates that there is still much confusion and ambiguity concerning the definitions and components of each of these concepts (Bernardes and Hanna 2009; Sherehiy et al. 2007; Zhang and Sharifi 2007). In general, all these concepts imply the ability to adjust and respond to change. However, some authors make a sharp differentiation between these concepts while others use them interchangeably.

Adaptability originated from the contingency approach in organisational research. Contingency theory states that organisations have to interact with their environment

in order to be successful and thus organisational effectiveness can be achieved by fitting the characteristics of the organisation to contingencies that reflect the situation of the organisation (Donaldson 2001). Thus, in order to maintain effectiveness, organisations are required to adapt over time to fit changing contingencies such as the market environment, organisational size and organisational strategy (Oktemgil and Greenley 1997; Sherehiy et al. 2007). Adaptation involves a period of gradual, long-continued and incremental change in response to changes in environmental conditions, and implies singular and permanent adjustments to the new environment (Evans 1991).

In 1980s, research shifted focus to organisational flexibility. In terms of conceptualisation, however there is not much consistency in the definition and utilisation of the term flexibility (Bernardes and Hanna 2009). For example, according to Evans (1991), the concept of flexibility is linked to the term resilience that refers to the tendency to rebound or recoil, showing buoyancy or recuperative power, as well as the capability to withstand shocks without permanent damage or rupture. Reed and Blunsdon (1998) defined flexibility as an organisation's capacity to adjust its internal structures and processes in response to changes in the environment. Zhang et al. (2003) define it as the organisation's ability to meet an increasing variety of customer expectations without excessive costs, time, organisational disruptions, or performance losses. Despite the lack of consistency, the review of research on flexibility in Sherehiy et al. (2007) shows that most of the definitions of flexibility emphasise the ability to adapt and respond to change and usually, scholars and practitioners perceive flexibility as reactive to change (Gerwin 1993).

Literature on agility has started to accumulate in 1990s, proposing agility as a form of new manufacturing paradigm (Yusuf et al. 1999; Zhang and Sharifi 2000, 2007). The first introduction of the agility concept in the Iacocca report (1991) described agility as one key to future competition and defined it as 'a comprehensive response to the business challenges of profiting from rapidly changing, continually fragmenting, global markets for high quality, high performance, customer configured goods and services' (Yusuf et al. 1999). Gunasekaran (1999) suggested that an agile enterprise is one with the ability of surviving and prospering in a competitive environment of continuous and unpredictable change by reacting quickly and effectively to changing markets, driven by customer-defined products and services.

There is no universally agreed definition on agility (Sherehiy et al. 2007), as Bernardes and Hanna (2009, p. 42) stated 'the attempts at defining agility have been characterized by vagueness and variability. Indeed, many of the definitions seem loosely derived.' Yet, there is a common agreement focusing on being able to compete and prosper within dynamic and unpredictable changing environment in the conceptualisation of agility (see a list of definitions in Table 2.2). Agility emphasises the ability to rapidly adapt to unpredictable changes in the business environment and meet the needs of increasingly demanding and well-informed customers. It is considered as the ultimate requirement for 'world-class' manufacturing performance (Hormozi 2001), or potentially the pathway to 'world-class' manufacturer status (Yusuf and Adeleye 2002).

Table 2.2 Definitions of agility

Definition	Reference
The ability to accelerate the activities on a critical path that commences with the identification of a market need and terminates with the delivery of a customized product	Kumar and Motwani (1995)
A comprehensive response to the business challenges of profiting from rapidly changing, continually fragmenting, global markets for high-quality, high-performance, customer-configured goods and services	Goldman et al. (1995)
The ability to produce and market successfully a broad range of low cost, high quality products with short lead times in varying lot sizes, which provide enhanced value to individual customers through customization	Vokuika and Fliedner (1998)
The ability of an enterprise to respond quickly and successfully to change	McGaughey (1999)
The capability of surviving by reacting quickly and effectively to changing markets, driven by customer-designed products and services	Gunasekaran (1999)
Agility is reflected in the successful exploration of competitive bases (speed, flexibility, innovation proactivity, quality and profitability) through the integration of reconfigurable resources and best practices in a knowledge-rich environment to provide customer-driven products and services in a fast changing market environment	Yusuf et al. (1999)
The ability of an organisation to thrive in a constantly changing, unpredictable business environment	Rigby et al. (2000)
The ability of enterprises to cope with unexpected changes, to survive unprecedented threats from the business environment, and to take advantage of changes as opportunities	Zhang and Sharifi (2000)
The organisation's capacity to gain competitive advantage by intelligently, rapidly and proactively seizing opportunities and reacting to threats	Meredith and Francis (2000)
It is the ability to both create and respond to change in order to profit in a turbulent business environment	Highsmith (2004)
A set of interlinked changes in marketing, production, design and organisation	Storey et al. (2005)
Ability to efficiently change operating states in response to uncertain and changing demands placed upon it	Narasimhan et al. (2006)
Agility is a manufacturing strategy that aims to provide manufacturing enterprises with competitive capabilities to prosper from dynamic and continuous changes in the business environment, reactively or proactively	Zhang and Sharifi (2007)

Source: Modified from Bernardes and Hanna (2009)

Some authors consider agile manufacturing to be mutually compatible with previous manufacturing systems, such as flexible production technologies, total quality management, just in time' production and lean production (Goldman and Nagel 1993; Hormozi 2001). some authors (Kidd 1994; Montgomery and Levine 1996) equated agility with flexibility. However, later works report a clear differences between these concepts (Bernardes and Hanna 2009; Zhang and Sharifi 2007). In particular, Baker (1996) proposed a typology in which agility is considered at a higher level over flexibility where strategic views and network of relations are considered. Das (2001) differentiates agility from flexibility by relating the latter to a firm's production system and the former to a firm-market interface. Similarly, Yusuf et al. (1999) argue that equating agility with speed of response or flexibility is a narrow understanding of what constitutes agility, since agility incorporates speed and flexibility.

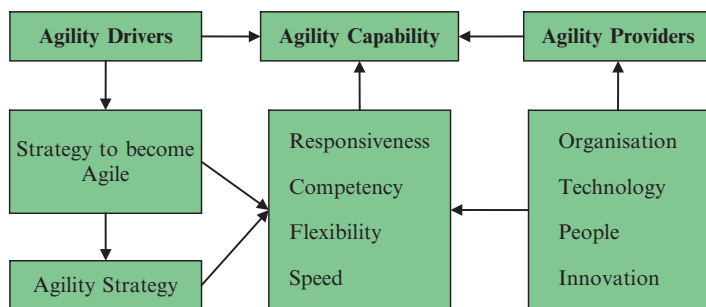
Further, Wadhwa and Rao (2003) argued that the major distinction between flexibility and agility is the character of the situations requiring change. Flexible changes are responses to known situations where the procedures are already in place to manage the change; whereas agility incorporates the flexibility and adds the ability to respond to unpredictable changes in the market or in customer demands. Therefore, flexibility may be subsumed within agility (Bernardes and Hanna 2009; Wadhwa and Rao 2003). Also, based on a review of literature on adaptability, flexibility and agility, Sherehiy et al. (2007) suggest that an agile organisation comprises all concepts and propositions developed in the frame of research on the adaptive and flexible organisation. The following will review some major frameworks of agility in literature, including the conceptualisation of agility, its main attributes, drivers and providers.

Goldman et al. (1995) asserted that agility is a comprehensive response to the business challenges derived from rapidly changing and continually fragmenting global markets. They developed four main strategic dimensions that underline the achievement of agility: (a) enriching the customer, which means delivering value and solutions to customers rather than products; (b) cooperating to enhance competitiveness. In order to achieve rapid delivery and cost efficiency, it is necessary to cooperate internally and externally with other organisations to maximise the effect of all available resources; (c) organizing to master changes, which requires a flexible organisational structure that allows for rapid reconfiguration of resource base; and (d) leveraging the impact of people and information.

Yusuf et al. (1999) defined agility in terms of input, operationalisation and output: “the successful exploration of competitive bases (speed, flexibility, innovation proactivity, quality and profitability) through the integration of reconfigurable resources and best practices in a knowledge-rich environment to provide customer-driven products and services in a fast changing market environment” (p. 37). Yusuf et al. (1999) stated that the competitive foundations of agility include: speed, flexibility, innovation, proactivity, quality and profitability and these competitive foundations must be achieved in synergy. A hierarchy of agility including three levels is identified in terms of its relation to different levels of enterprise. Elemental agility refers to individual resources (people, machinery and management); micro-agility refers to the enterprise, and macro-agility to the inter-enterprise level.

Sharifi and Zhang (1999) defined the agility concept to include two main factors: (a) responding to changes (anticipated or unanticipated) in proper ways and due time; (b) exploiting changes and taking advantage of changes. The framework proposed by Sharifi and Zhang (1999) is considered as the most holistic and concise framework in agility literature, incorporating agility drivers, strategic abilities, agility providers and agility capabilities (Fig. 2.4).

Environmental turbulence, encapsulating continuous, uncertain and potentially disruptive changes in a variety of factors is the key driver for the development of agility (Vazquez-Bustelo et al. 2007). The sources of changes can be broadly grouped into five dimensions: marketplace, competition criterion, customer requirements, technology and social factors (Zhang and Sharifi 2000, 2007). Strategic abilities are the main attributes of agility that allow a firm to successfully deal with



Source: Adapted from Sharifi & Zhang (1999)

Fig. 2.4 A conceptual model for agility capability (Source: Adapted from Sharifi and Zhang (1999))

changes, including responsiveness, competency, flexibility and speed. The attributes of agility will be discussed in more details in Sect. 2.14.1.1. Agility can be achieved in an organisation that has an innovative management structure with highly-skilled, motivated and empowered people who work as a team with the support of flexible, smart technology and systems for the proper management of knowledge and learning. However, these four areas need to be integrated to achieve agility (Kidd 1994; Sharifi and Zhang 1999).

Establishing partnerships with suppliers, customers and competitors is recognised as one of the most important organisational practices to achieve agility (Van Oyen et al. 2001; Yusuf et al. 1999; Zhang and Sharifi 2007). Requirements of complex and changing customer markets, that may be impossible for individual organisations to achieve, can be easily met through the cooperative partnership. Thus, cooperation among organisations provides platforms for rapid response to customer demand. Forming partnership allows firms to combine and coordinate resources and diverse skills, capabilities spreading across disparate organisations to develop high quality, and customized products and services responding to customer specifications. Besides, the enhancement of core competence in business partnerships assists the development of high-order capabilities such as agility (Sharifi and Zhang 1999; Zhang and Sharifi 2007). Valuable resources and talent of employees, to some degree, are transparently available to organisations in business partnership. With the highly competitive core competences, firms are able to build multi-venturing capability and access to a wide spectrum of markets.

2.14.1.1 Attributes of Agility

A large diversity of agility attributes can be identified in extant literature. Based on a review of literature, the main attributes for an agile organisation are identified as: speed, responsiveness, proactiveness and slack resources.

Speed is considered as an essential element of agility capabilities (Gunasekaran 1999; Yusuf et al. 1999). Speed is the firm's ability to accomplish tasks in the shortest

possible time, such tasks includes quick new product development, product/service delivery quickness, fast operation, fast product modification, quick learning of new technology, and fast adaptation to change, etc. (Sherehiy et al. 2007). Speed of change is how quickly the firm reacts and responds to market changes as a result of environmental and competition pressures. Agile organisations are fast operators (Zhang and Sharifi 2007). Speed in competitive actions is desirable as fast decision making can result in quicker response to the market dynamisms. The presence of early-mover advantages emphasises the necessity of great speed. Developing the ability to reduce cycle time in business activities is important for organisational success as it enables firms to provide greater value to customers by reducing delivery time, rapidly responding to changing customer needs and efficient operational system. Empirical studies have shown that speed improves alignment between firms and their environments and is related to superior firm performance (Collins and Schmenner 1993; Eisenhardt and Bourgeois 1988). However, in spite of its virtues, using speed as a strategy must be planned carefully, for otherwise speed can be fatal (Youssef 1992).

The most frequently cited attribute in agility literature is responsiveness to changes (Ren et al. 2000; Sherehiy et al. 2007). Responsiveness is the ability to identify changes and opportunities, respond reactively or proactively to them, and recover from them (Sharifi and Zhang 1999). Firms need to become more adept at responding to competitor moves while engaging in opportunistic searches for under-served or un-located market segments and niches. Most definitions of agility incorporate the notions of ‘responding to changes’ and ‘exploiting and taking advantage of the changes’ (Goldman et al. 1995; Kidd 1994). Responsiveness can be considered as the continuous response to unpredictable changes and the adjustments to unexpected consequences of predictable changes. Research on responsiveness to changes is related to response to customer demand (Van Hoek et al. 2001), market turbulence (Rindova and Kotha 2001), competitors’ actions and competition pressure. Empirical findings suggest that highly responsive firms demonstrate a better firm performance than firms that do not effectively change (Garrett et al. 2009).

In business partnerships, information exchange enables firms to quickly and accurately identify changes and opportunities, and make fast decisions to take advantage of changes. Additionally, the enhanced effect of organisational resources in business partnerships helps firms more effectively carry out the strategies and practices of responding to the changes. Effective responsiveness is not only a matter of survival, but also an indispensable factor for a firm to prosper under dynamic conditions.

Proactiveness is the capability to act proactively, taking initiatives in improving current circumstances or creating new favourable ones (Crant 2000). The adjustments or responses undertaken by a firm can be reactive or proactive in relation to the market. The response is proactive when the firm uses knowledge to impose changes in the market, for example, a firm proactively attempts to anticipate and fulfil a potential customer need by newly acquired knowledge. Alternatively, the response is reactive when the firm is coping with changes imposed by external

forces. For example, the firm modifies its product to defend its market position when a competitor incorporates a new feature in its similar product. According to Sherehiy et al. (2007), a proactive firm is customer-oriented, tries to be quick, flexible, and responsive simultaneously, and proactively attack threats and seize opportunities. Such a firm develops a management style that coaches and inspires people, promotes dynamic organisation, involves employees at all levels in decision making, encourages innovation and problem-solving related to change. Central to the notion of proactiveness is the capability to learn fast in an environment where changes are fast-paced and difficult to foresee (Bernardes and Hanna 2009).

Firms benefit from their proactive responses to market environments, such as reduction of costs in terms of processes, inputs and products, innovations in new products, operating systems, and improved corporate reputation and relationships with a wide variety of stakeholders (Sharma and Vredenburg 1998). Proactive firms place high importance on business partnerships so as to gain timely information to anticipate the market changes (Ren et al. 2003). Liaison with other organisations enables firms to identify problems or opportunities early, acquire capabilities ahead of need, and take advantage of opportunities (Yusuf et al. 1999). Having business partnerships is found to have significant effects on a firm's proactiveness in Ren et al.'s (2003) neural network approach research and Zhang and Sharifi's (2007) quantitative research in the UK.

Slack is defined as the difference between total resources and total necessary payments (Daniel et al. 2004). Bourgeois (1981) defines it as a cushion of actual or potential resources, that firms can use to initiate changes in strategies for adapting to the environment. The most widely used classification of slack resources is proposed by Bourgeois and Singh (1983): available, recoverable and potential slack (e.g., excess liquidity, overhead expenditures, and borrowing capacity, respectively). Slack resources are accumulated for pursuing market and competitive opportunities in the future (Yang et al. 1992). Having more slack resources provides firms with greater flexibility to implement required actions (Chattopadhyay et al. 2001). Slack resources are facilitators of proactive strategic initiatives (Daniel et al. 2004). When firms face market threats, slack resources can be allocated and deployed to build required capabilities that maintain a firm's competitiveness, thus, "with sufficient slack, there will be a solution for most problems" (Tan 2003).

Furthermore, as slack resources are not committed to necessary operational tasks, and are available to spend on explorative activities, it encourages firms to take risks and carry on experiments of new strategies that might not possible in a resource-constrained firm, for example, introducing new products, entering new markets, and so on (Bourgeois 1981; George 2005). In organisations that have little slack, managerial attention is likely to focus on short-term performance of exploitation rather than innovative projects (Nohria and Gulati 1996). Conversely, firms with slack are able to deploy resources to research and implement new practices or capabilities for long-term performance achievement (Danneels 2008).

Some studies support the direct and positive effect of slack resources on firm performance (Ahuja 2000; Brush et al. 2000; Chang and Singh 1999; George 2005), some also argue for an inversed U-shaped relationship between slack resources and

firm performance. That is, with slack resources increase, the positive effect on performance decreases beyond an optimal point with highest performance; if slack resources exceed that point, the performance will go down because too much slack influences firm's operational efficiency, and increases the production costs (Bourgeois 1981; Tan 2003).

2.14.1.2 Agility and Firm Performance

According to the literature, agility is reflected in the successful exploration of competitive bases (speed, flexibility, proactivity and slack resources) through the integration of reconfigurable resources in a knowledge-rich environment to provide customer-driven products and services in a fast-changing environment (Yusuf et al. 1999). Agility is thus, associated with a firm's ability to survive and prosper. When focusing on the outcomes, agile organisations can quickly satisfy customer needs, frequently introduce new products, offer high-quality products at low cost with better service conditions, establish stable customer relations and loyalty, and even get in and out of its strategic partnerships speedily (Jain and Jain 2001; Vazquez-Bustelo et al. 2007). By fostering the development of those capabilities, agility is often related with growth orientation, success, growth in profitability, market share and customer satisfactions (Goldman et al. 1995). Thus, it is proposed that:

Hypothesis 47: *Agility is positively associated with firm performance.*

As a dynamic capability, agility is also expected to:

Proposition 11a. *Agility mediates the relationship between organisational resources and firm performance.*

Proposition 12a. *Agility mediates the relationship between organisational capabilities and firm performance and development of new capabilities.*

So far there are few empirical studies regarding the influence of agility on business performance (Bernardes and Hanna 2009; Sherehiy et al. 2007), the research is especially rare in emerging economies. Most research in the field of agility focuses on theoretical descriptions of agility and its frameworks. Limited attention is paid to test the developed frameworks and metrics (Vazquez-Bustelo et al. 2007; Yusuf and Adeleye 2002). Also, the development and description of the measures of agility have not been given much attention in prior research. This study fills this gap by operationalising agility and empirically testing its impact on business performance.

2.14.2 Network Competence

In order to be adaptive in a rapidly changing environment, while focusing internal resources on core competencies, many organisations increasingly rely on external partners to overcome competence limitations, leverage capabilities and achieve

flexibility (Heimeriks and Schreiner 2002). Firms are widely recognised as being embedded in networks of social, professional, and exchange relationships (Gulati and Gargiulo 1999). In the age of the networked economy, relationships and networks are an inescapable part of a firm's environment, survival and growth (Parise and Casher 2003). IBM for example, receives more than one-third of its revenues through business partnerships of varying types (Parise and Casher 2003). Ford (1997, p. xiv) argued that 'a company's relationships with others effectively defines its existence and without them it has no meaning.'

A network encompasses a set of relationships with various organisations, including customers, suppliers, competitors, or public research institutions. These relationships connect with each other and create a wider network structure (Walter et al. 2006). Network members can be linked by many types of connections and flows, such as information, materials, financial resources, services, and social support. Connections may be informal and totally trust based or more formalized, as through a contract (Provan et al. 2007). As the portion of a firm's competitive advantage derived from network relationships grows (Dyer and Singh 1998) and the firm's value influenced by network activities increases (Anand and Khanna 2000; Kale et al. 2002), scholars and managers become interested in the capabilities that enable firms to succeed in networks (Walter et al. 2006).

Inter-firm partnerships are difficult to manage because of their complicated nature and it is practically impossible to specify the concrete results of many joint efforts in advance (Anand and Khanna 2000; Chung et al. 2000). Ford (1997, p. 559) noted that 'the inherent complexity of intercompany relationships and networks means that it is unrealistic to imagine that they can be wholly 'designed' by any one party, still less that their evolution can be solely the result of conscious one-sided plans.' Even though individual companies may be limited in their actions, each actor in a network has some influence on the network. When effective and efficient network government tools are not well-developed, network management can be more about being manageable, such as responding to the opportunisms by others (Ritter and Gemunden 2003; Ritter et al. 2002).

Further, value creation from networks does not simply exist or emerge. The transfer of know-how in networks is fraught with ambiguity and interactions between network members can rarely be pre-specified (Walter et al. 2006). Substantial costs occur when firms invest time, effort, and resources to gain access to external resources (Ritter and Gemunden 2003). Sometimes, networks may have negative impacts by locking firms into unproductive processes, such as when a relationship persists beyond its useful lifespan, it can result in inefficient management of resource allocation. Therefore, in network management, a firm's the ability to initiate, handle, use, and terminate inter-organisational relationships becomes of central importance (Hagedoorn et al. 2006).

Several terms are used to describe this concept in literature. Lorenzoni and Lipparini (1999) used relational capability and referred it to as the capability to interact with other actors, based on absorption, combination and coordination. Lambe et al. (2002) used the term of partnership competence to define a firm's ability to find, develop and manage partnerships. Three underlying facets that contribute

to partnership competence are: partnership experience, partnership manager development capability, and partner identification propensity. Kale et al. (2002) defined partnership capability as a composite of partnership experience and the existence of a dedicated partnership function to capture, integrate and disseminate partnership management know-how associated with prior experience. This dedicated function coordinates all partnership-related activities within the firm and enhances the firm's ability to generate high returns from business partnerships.

Based on the contributions of a dedicated partnership function, Walter et al. (2006) identified four components of network capability: coordination, relational skills or social competence, partner knowledge and internal communication. Rothaermel and Deeds (2006) employed the term of partnership management capability as a firm's ability to effectively manage multiple partnerships. They suggested that this capability is a path dependent capability which is built over time through repeated engagements in partnerships.

A more comprehensive model in this field is provided by Ritter and Gemunden (2003) and is adopted in this study. Ritter and Gemunden (2003) used the term 'network competence' to include both having necessary knowledge, skills, and qualifications as well as effectively using them. The tasks that need to be performed in order to manage a firm's network are distinguished from the qualifications, skills and knowledge that are needed to perform these tasks. The two elements are mutually dependent contributing to the concept of network competence. Qualifications, skills and knowledge are resources and preconditions for effective task execution; meanwhile task execution is a precondition for the further development of these qualifications, skills and knowledge.

The term 'network' expresses that managing relationships go beyond coping with single relationship (a dyad) (Walter et al. 2006), therefore task execution can be viewed in two levels: relationships-specific tasks and cross-relational tasks. The relationships-specific tasks refer to activities to establish and maintain a single relationship and the latter is associated with managing a portfolio of relationships or a network as a whole (Ford 1997). Traditional approaches dealing with business partnerships focus on the design and management of individual relationship. As the increasingly diverse types of business partnerships that firms are required to establish, traditional management approaches are necessary but no longer sufficient in today's dynamic business environment (Parise and Casher 2003). Firms have begun to realise that partnership success is not only a function of individual relationship factors but also of their ability to design and manage the entire partnership portfolios.

Three different types of relationship-specific tasks are identified in Ritter and Gemunden (2003): (a) initiation, which refers to the specific investments to identify potential partners, such as visiting trade shows, monitoring industry-related journals, exploiting hints from existing partners, company visits and the distributing information of the firm to potential partners; (b) exchange of products, services, money, information, know-how, and personnel (Anderson and Narus 1990). Exchange activities can involve technology-related exchange (transfer of technological information, technological needs and requirements), person-related exchange (knowledge of personal needs, requirements, and preferences to establish

social bonds), and organisation-related exchange (information on partner's strategy, organisational structure and culture) (Ritter and Gemunden 2003); and (c) coordination, including the establishment and use of formal roles and procedures and the utilisation of constructive conflict resolution mechanisms to facilitate an effective resource exchange.

Four different cross-relational tasks are involved: (a) planning, generated from implications of internal analysis (resources, strength, and weakness within the company), network analysis (quality of external contributions, fit to internal resources, strategic and resource fit within the network), and environmental analysis (competitors, general technological and market developments); (b) organising, including assigning responsibilities of each party to achieve the plans, specifying resource allocation to specific relationships as well as the way of communicating between people dealing with relationships inside the firm, and adapting to meet particular partner's needs in the network; (c) staffing, refers to the allocation of personnel to specific relationships according to organisational needs, and the management to promote coordination and solve conflicts between employees; and (d) controlling, measuring contributions of either internally oriented (personnel, quantity and quality of communication activities) or externally oriented (external partners or performance of the network as a whole).

The resources needed to execute network tasks can be classified into specialist and social resources (qualifications, skills and knowledge) (Ritter and Gemunden 2003). Specialist qualifications and knowledge include: (a) technical skills to understand partners' technical needs, requirements and capabilities; (b) economic skills to define inputs and set prices; (c) legal skills needed in setting up contracts and division of rewards; (d) knowledge about partners in terms of operation, personnel and resources, that are important for understanding their behaviours and the development of the network; and (e) experiences resulted from previous interactions with external partners. Repeated engagements in business partnerships allow firms to create codified routines and procedures as well as tacit knowledge with respect to the entire range of network management (Rothaermel and Deeds 2006; Simonin 1997). A firm must learn by doing (Anand and Khanna 2000; Day 1995).

Social qualifications and skills are critical in interpersonal interactions (Lambe et al. 2002). Independent and prudent behaviours of managers and employees can smooth the coordination process and assist the development of relational capital in network partnerships. Social skills include several dimensions such as communication ability, extraversion, conflict management skills, empathy, emotional stability, self-reflectiveness, sense of justice and cooperativeness (Marshall et al. 2003; Walter et al. 2006).

As for the functions of strategic network competences, it is related to the strategic positioning of firms in a network and the efficiency with which they choose partners (Hagedoorn et al. 2006). Network competence enables a firm to place itself in a particular position in a broad network of partnerships with multiple firms. A firm with well-developed network competences acts as a strategic player that has positioned itself in a central position so that it can understand the positioning of other firms in the network and their information flows and learn from a variety of partnerships (Hagedoorn et al. 2006).

Strategic network competence indicates the degree to which a firm has learned to optimise its number of partnerships within a group of other firms, avoiding unnecessary duplication of partnerships. A firm with efficiency-based network competence acts as a strategic player that is able to enter into new useful partnerships while maintaining few or no redundant contacts that carry little information (Marshall et al. 2003; Sivadas and Dwyer 2000). Not all possible relationships are advantageous or should be nurtured. The relationship portfolio a firm has developed should be comprised of relationships that add to a firm's ability to efficiently and/or effectively produce a market offering that has value to some market segments (Hunt 1997; Hunt et al. 2006).

Although networks tend to be fairly stable, they do evolve over time (Chiu 2009). New partnerships will be added to address new market opportunities, existing partnerships will run their course and be terminated, or new market or firm conditions (personal, organisational and cultural attributes) will force existing relationships to be altered significantly. Anand and Khanna (2000) described the above as contingencies. Network properties, such as power distribution and network positions, are emergent in nature and subject to a continuous process of being redefined and reshaped as the relationships move on (Chiu 2009; Gulati et al. 2000). Network competence is a firm's ability to anticipate some of these contingencies, analyse the impact of changes on partnership portfolio composition and respond to them in an effective manner (Anand and Khanna 2000). This type of competence is especially critical in a turbulent environment, where frequent changes in competitor and customer dynamics in an organisation's industry and its partners' industries can significantly affect its partnership portfolio (Parise and Casher 2003).

2.14.2.1 Network Competence and Firm Performance

Firms differ in their ability to handle networks (Heimeriks and Schreiner 2002; Helfat et al. 2007). Some firms within and across different industries, sizes and nations, are more successful in their overall network activities than others. Indeed, the management of network is not a well-specified process and has ambiguities and path dependent characteristics (Anand and Khanna 2000). In addition, the capability to manage is heterogeneously distributed across firms and difficult to imitate (Rothaermel and Deeds 2006). Accordingly, prior studies emphasise that superior network competence can contribute to a firm-level competitive advantage (Dyer and Singh 1998; Hakansson and Ford 2002; Ireland et al. 2002; Sivadas and Dwyer 2000). Network competence enables a firm to connect its own resources to those of others' by building partnerships. Intangible resources such as technology, managerial know-how and tacit capabilities are not available in exchange market. Transfer of intangible assets requires the establishment of partnerships and effective management to generate optimal values, eventually leading to an increase in competitive strength of the firms (Chiu 2009).

A well-developed network competence increases the likelihood of firms to engage in future partnering activities by reducing the relationship barriers and

effectively identifying potential partners. A well-placed firm in network is able to use the rich information to choose future partners, and also the reputation as a skilled and knowledgeable partner derived from the central position makes the firm a reputed partner. A strong network competence enables the efficiency of resource allocation in searching new partnerships while maintaining existing valuable ones. Firms with the ability to systematically and proactively scan and identify partners often achieve 'first-mover' advantage that allows them to gain access to and pre-empt competition for scarce resources offered by potential partners (Varadarajan and Cunningham 1995; Day 1995).

Further, network competence plays an important role in fostering the success of cooperation process by executing coordination, planning, organizing, staffing and controlling relational-related tasks (Ritter and Gemünden 2004). Network competence is critical for creating a sustainable win-win situation because only networks with perceived fair value sharing can prosper in the long term. Network competence is able to balance the danger of out-learning and being out-learned by developing a mutual understanding of the benefits among partners (Walter et al. 2006).

Partnering with customers is an important means of learning existing and potential customer needs in order to develop profit-generating market offerings. Network competence, as a mechanism of anticipating market opportunities, leads to a more focused, market-oriented resource deployment (Walter et al. 2006). Continuously monitoring customer preferences and competitor actions and disseminating this information throughout the organisation and its network, will help firms to attain superior performance based on the provision of customer-needed products and services (Narver and Slater 1990).

Whereas partnering with suppliers ensures timely input and adaptation to variations in demand that are of great importance to manufacturing organisations. In addition, network-competent firms can be assumed to have a high level of market knowledge competence that contributes to marketing performance (Li and Calantone 1998). Besides, strong network competence benefits the firm's internal development as internal organisational activities also require social interaction and managerial skills. To sum up, the key to differentiation in firm performance, and therefore to competitive advantage, is to design a network portfolio that is both synergistic and responsive to market dynamics, and to manage that portfolio in line with organisational strategy development (Parise and Casher 2003).

In China, network competence has an even more importance for manufacturers as it enables firms to bring a product to market faster and cover larger regions. Chinese manufacturers are well-positioned as highly-efficient product providers in the global market while they rely on partners in market sensing and market intelligence, especially in overseas markets. Firms focus on their core manufacturing activities and inter-link them with network partners to reach customers. Those manufacturers therefore need reliable market partners who possess reputed brands, corporate images and superior market knowledge to develop reputation in product quality and reliability when their own market knowledge and capabilities are constrained. Therefore, the existence and growth of Chinese manufacturers in the global

market depends on their ability to manage connections with such organisations. In conclusion, it is proposed that:

Hypothesis 48: *Network competence is positively associated with firm performance.*

As a dynamic capability, network competence is also expected to:

Proposition 11b. *Network competence mediates the relationship between organisational resources and firm performance.*

Proposition 12b. *Network competence mediates the relationship between organisational capabilities and firm performance and development of new capabilities.*

2.14.3 R&D Competence

R&D competence is of great importance in business success as the level of competition is increasing and the production processes and systems are rapidly updated. Companies keep an eagle eye on competitors and customers in order to keep pace with modern trends in technology and the needs, demands and desires of their customers. Executives come to recognise the new challenges in today's globally competitive environments and understand the importance of continuously updating their firm's technological knowledge and practices in order to respond to the dynamic changes in market environments (Krasnikov and Jayachandran 2008).

R&D competence refers to the processes that enable firms to invent new technology and convert existing technology to develop new products, services and practices (Krasnikov and Jayachandran 2008). Lukas and Bell (2000) conceptualised R&D competence as consistent with March (1991)'s notions of exploration and exploitation. Exploration is defined as searching and experimenting for new knowledge, whereas exploitation refers to capitalizing on existing knowledge. In the R&D context, Lukas and Bell (2000) referred exploration capability to the creative processes of discovering new products, and exploitation capability to the extension of existing products.

Li and Calantone (1998) used the term 'R&D strength' referring to a firm's resources and capacity for new technology development. Similar to this notion, Danneels (2008) defined R&D competence as a second-order competence that reflects the firm's ability to build new technological competences. The distinction between first-order and second-order competence defined in Danneels (2008) originates from dynamic capabilities literature. First-order competence is a skill to perform a particular task, whereas a second-order competence is the ability to identify, evaluate and incorporate new competences into the firm (Danneels 2002).

From a learning perspective, R&D competence, the ability to create new first-order technological competence, is an explorative learning activity that explores new technologies (Danneels 2008). Exploring a new technology involves assessing and identifying promising new technologies, recruiting technical personnel in new areas, implementing new types of development and production facilities.

R&D competence is a dynamic capability due to its ability to alter resource configuration of the firm (Eisenhardt and Martin 2000). This competence is one of the mechanisms that enable a firm to create, integrate, recombine and shed resources. Firms identify new technologies, integrate new knowledge with existing ones, and recombine its knowledge base for a new product, service or operation process design (Fleming 2001). Such knowledge integration and recombination can be within, outside or across organisational boundaries. Different choices of knowledge used in integration and recombination can lead to different technological capabilities and consequently, different performance outcomes (Nerkar and Paruchuri 2005). Thus, the activities in identification, integration and recombination particular technologies are directed by corporate strategy for firm's continuous value creation in dynamic changing environment. As a dynamic capability, R&D competence helps firms mitigate path dependencies in their development, escaping from the trap laid by their current competences (March 1991). By adding new technological capabilities to a firm's repertoire, R&D competence is important for a firm's continued prosperity in changing environments (McGrath 2001; McGrath and Nerkar 2004). Therefore, R&D competence is suggested as one of the primary characteristics that differentiate successful firms from unsuccessful ones (Bettis and Hitt 1995; Nerkar and Paruchuri 2005).

However, R&D activities are very difficult to manage, since R&D is a process of learning and experimenting and the researchers do not know in advance exactly how to accomplish a desired result. As a result, higher R&D spending does not guarantee more creativity, higher profit or a greater market share. Often, it is suggested that R&D competence work interactively with marketing capability or market orientation and manufacturing capability (De Luca et al. 2010; Dutta et al. 1999). The interaction between marketing, R&D and manufacturing capabilities enhances firm performance over and above the contribution of each of the individual capabilities. A strong marketing capability is able to give R&D good feedback from customers that in turn drives the kinds of innovations needed to improve the current products. A strong manufacturing capability ensures speedy and successful commercialization of technologies and products at a low cost. When a newly needed product design is developed, products are technically superior and production processes are as efficient as possible, possessing a competitive advantage in the market place becomes possible.

R&D competence is based on the knowledge of current and emerging technologies and past experience to forecast and respond to technology changes. It usually develops over time through learning and experimentation. A substantial part of R&D competence is difficult to codify due to its socially complex nature, implying that R&D knowledge is distributed across multiple groups and people in the organisation. The experiential learning and social complexity suggest that R&D competence, to a large degree, is based on knowledge that is tacitly held and difficult for rivals to copy and transfer. Thus, R&D competence is likely to be immune to competitors' imitation and acquisition and can lead to a competitive advantage.

Firms with superior R&D competences are able to be fast and successfully develop new products with new or more advanced technical features than products of counterparts, that consequently leads to high customer satisfaction and marketing

performance (Dutta et al. 1999). Due to continuous technological changes as well as the changing preference of customers, firms must continually revise their design and range of products in order to survive and grow.

Prior empirical studies show some firms, that are persistently competent at generating knowledge in certain technological areas, are able to sustain their superior performance (Danneels 2008; Krasnikov and Jayachandran 2008). Cooper (1983), in an investigation of 122 firms, observed that R&D competence has a significant effect on firm's ability to produce highly innovative and high-technology products. Dutta et al. (1999) studied 92 manufacturing firms in high-technology industries and found that R&D competence is an important determinant of relative financial performance within the industry. In Krasnikov and Jayachandran's (2008) work investigating the influences of capabilities on firm performance, R&D competence is found to be positively associated with performance.

Globalisation is having a particularly large impact on R&D activities. The scope for global collaboration is increasing as more of the world's regions possess important R&D competence, including emerging countries like China. The fast changing technologies and increasingly competitive global market has led to the rise in cost and risk of R&D activities because of its increasingly multidisciplinary character and growing complexity. Firms largely rely on external sources of innovation for reducing R&D costs and speeding up the development process (Hagedoorn 2006).

In a study by Economist Intelligence Unit (2007), more than 300 senior executives identified China as the one of the top 3 most attractive overseas locations for R&D, and 30 % of the respondents planned a substantial increase in their investment in China. According to the official statistics from China, 1,160 foreign R&D centres have been established in China by the end of 2007, most of them after 2001 (The Organisation for Economic Co-operation and Development—OECD 2008). The large and rapidly growing markets and large pools of qualified workers with relatively low labour cost are important drivers for the internationalisation of R&D. This shift towards emerging countries is expected to continue, as demonstrated by the findings on future R&D investments in a survey by UN Conference on Trade and Development.

China is the location mentioned most often in R&D investment. As an attractive R&D investment country, China has recently started to set up foreign R&D units, often for gaining access to intellectual property or markets. For Chinese firms only, 37 R&D units were located abroad in 2006, of which 26 were in developed countries (OECD 2008). It is obvious that R&D competence is playing an extremely important role in the survival and growth of both domestic and international firms in the Chinese market. Thereby, it is hypothesised that:

Hypothesis 49: *R&D competence is positively associated with firm performance.*

As a dynamic capability, R&D competence is also expected to:

Proposition 11c. *R&D competence mediates the relationship between organisational resources and firm performance.*

Proposition 12c. *R&D competence mediates the relationship between organisational capabilities and firm performance and development of new capabilities.*

2.14.4 *Market Orientation*

Market orientation, ‘a cornerstone of modern marketing practices’ (Sternquist et al. 2010, p. 360), has attracted a dramatic attention of academic and practitioner interest in the last 25 years. In the marketing concept, the key to achieve organisational goals is to be more effective and efficient than competitors in identifying and satisfying the needs of target markets (Kotler 2003).

A review of literature on market orientation reveals that two primary perspectives have emerged to conceptualise the construct: the behavioural perspective and the organisational culture perspective (Homburg and Pflesser 2000). Kohli and Jaworski (1990) represent the first perspective and defined market orientation in terms of specific behaviours related to the generation and dissemination of market intelligence, and the firm’s responsiveness to it. Market intelligence generation refers to monitoring customers’ current and future needs, observing competitors and their impact on customers, as well as exogenous factors such as technology and environmental forces. Market intelligence dissemination refers to the sharing and use of the market intelligence across the organisation’s functions and departments. Responsiveness to market intelligence refers to the organisational wide use of the information. This responsiveness is the greatest value as it relates to the organisation’s response to market needs (Lafferty and Hult 2001).

The cultural perspective describes market orientation as an organisational culture that is dedicated to continuous creation of superior value for customers (Deshpande et al. 1993; Narver and Slater 1990). According to Narver and Slater (1990), this culture creates an environment that maximises opportunities for learning the markets, sharing information among functions within organisation that allows for common interpretations and taking coordinated action. Three dimensions are encompassed in market orientation under this context: customer orientation, competitor orientation and interfunctional coordination (Narver and Slater 1990). Customer orientation refers to the understanding of target customers’ needs and the ability to constantly create superior value for them. Competitor orientation refers to the understanding of the strengths, weaknesses, capabilities and strategies of competitors. Finally, interfunctional coordination relates to the coordination of all organisational activities in creating superior value for target customers. The basic assumption behind Narver and Slater’s (1990) conceptualisation is that these activities related with customer, competitor and interfunctional reflect an underlying organisational culture that creates a setting conducive for continuous creation of customer value, which in turn leads to the superior business performance.

Both perspectives were found equally useful (Jaworski and Kohli 1996), as stated in Varadarajan and Jayachandran (1999, p. 134) that ‘market orientation is a set of tangible actions that a firm initiates as well as the underlying culture.’ Other researchers examining the two perspectives claim that though they are distinct initially, they are often intertwined (Sternquist et al. 2010). Research within the cultural perspective, although based on a cultural definition of market orientation, typically has conceptualised it in terms of behaviours (Deshpande et al. 1993;

Narver and Slater 1990). Mavondo and Farrell (2000) compared the two models and contended that they both focused on similar issues. In this study, Narver and Slater's (1990) operationalisation will be used.

Since the articulation of theory of market orientation in 1990 (Kohli and Jaworski 1990; Narver and Slater 1990), market orientation is described as the implementation of the marketing concept. It is almost axiomatic that by continuously monitoring of customers, their needs and market conditions, firms can adapt to develop and deliver market offerings that are valued by customers (Atuahene-Gima 2005). However, the concept that merely responding to customers' wishes has been questioned. For example, Christensen and Bower (1996, p. 198) noted that 'firms lose their position of industry leadership...because they listen too carefully to their customers.' Hamel and Prahalad (1994) argued that market-oriented firms could dominant the served market in which managers saw the world only through their current customers' eyes.

Realizing the limitations of a reactive market orientation, Narver, Slater and MacLachlan suggested the concept of total market orientation, that includes both responsive and proactive sets of behaviours. A responsive market orientation is defined as business's attempts to discover, understand, and satisfy the expressed needs of customers. It is also referred to 'customer led' in Slater and Narver (1998) and 'customer compelled' in Day (1999). While, a proactive market orientation is defined as business's attempts to discover, understand and satisfy the latent needs of customers. Latent customer needs are no less real than expressed needs, but they are not in the consciousness of the customers. By discovering and satisfying the latent needs of customers the firm is leading customers in their satisfaction, that implies proactivity in the anticipatory sense (Narver et al. 2004).

A responsive market oriented firm focuses largely on the domain of the firm's current knowledge and experience and provides an in-depth understanding of current customers and their expressed needs (Berthon et al. 1999). Its innovation of products relies on the efficient integration of knowledge closely related to extant experience to satisfy expressed customer needs (Tsai et al. 2008). In contrast, a proactive market oriented firm explores new and diverse information, knowledge and market significantly distant from extant experiences. Thus, this approach takes a firm beyond the scope of its current experience and experimentation to discover and satisfy the unexpressed customer needs (Atuahene-Gima 2005; Narver et al. 2004). From the perspective of organisational learning (March 1991), the responsive market orientation reflects exploitation behaviours that search for proximity, refinement, efficiency and implementation; whereas proactive market orientation reflects exploration activities that search for discovery, variation, innovation and risk-taking (Atuahene-Gima 2005; Tsai et al. 2008).

The strength of proactive market orientation is that the firm continuously discovers new opportunities for target markets. As a result, total market orientation is considered as more appropriate than merely responsive market orientation for firms that operate in dynamic market or competitive environment (Narver et al. 2004), and is adopted in this study. According to Narver et al. (2004), merely satisfying customers' expressed needs may be insufficient for a business to attract and to retain

customers, as expressed needs and benefits can be easily known or imitated by all competitors. In a situation where consumers perceive no differences in the value of offerings, firms will have to engage in aggressive price competition in an attempt to create superior value for the customers (Voola and O'Cass 2010). To avoid such price competition, firms must move beyond customers' expressed needs to their latent needs, continuously exceeding the expectations of its target customers (Day 1999). This is of more importance in market environments where competition is increasingly intensive and customer preferences are rapidly changing. Without strong competence in anticipating future needs of customers, when current offerings easily become obsolete, the slowness in providing needed products/services can be a danger for a business.

While early research conceptualised and measured market orientation as an ordinary organisational capability (Kohli and Jaworski 1990), recent research suggests that market orientation indeed is a dynamic capability, referring to an 'interconnected resource' in Madhavaram and Hunt (2008). As mentioned before in Sect. 2.4.1, Madhavaram and Hunt (2008) developed a hierarchy of operant resources (those that act on other resources) including basic, composite and interconnected operant resources. Interconnected operant resources fall into the highest level and are defined as a combination of two or more distinct basic resources in which the lower order resources significantly interact, thereby reinforce each other in enabling the firm to produce efficiently and/or effectively valued market offerings. In this scenario, market orientation is an interconnected resource that involves basic resources such as (1) knowledge about current and future customers, (2) knowledge about current and potential competitors, and (3) highly coordinated employees across departments to share and implement the knowledge (Grinstein 2008; Madhavaram and Hunt 2008).

In addition, market orientation is posited as a precursor to capability building (Day 1994; Hurley and Hult 1998), because firm's resource allocations to exploit existing capabilities and develop new capabilities are substantially affected by its knowledge of current and future customers and competitors (Atuahene-Gima 2005). Such knowledge is a resource with which managers can uncover current capability deficiencies and emerging market opportunities that may require the development of new capabilities. Levinthal and Myatt (1994) also explained that how a firm's capabilities evolve is intimately linked with its knowledge of how the competitive markets it serves evolve. The origins of firm's competitive advantage lies in the managers' ability to invest in appropriate competencies in response to environmental requirements (Henderson and Cockburn 2000).

Several other studies also state that market orientation plays a role in building firm capabilities (Atuahene-Gima and Ko 2001) and adaptation to turbulent external environment (Grewal and Tansuhaj 2001). Market oriented firms are sensitive to environmental changes. They are in a better position than non-market oriented firms to uncover the opportunities and threats in the external markets. In particular, a proactive market oriented firm not only responds to current market conditions but also anticipates future market conditions (Voola and O'Cass 2010). Focusing on future customer needs alerts the firm to new market and technology developments,

that can direct managers to make investments in new capabilities for product innovation (Tsai et al. 2008). Further, the interfunctional coordination dimension of market orientation enables firms to effectively synthesize, integrate and apply current and newly acquired external knowledge across functions (Kogut and Zander 1992). Coordination and co-contribution across functions also ensures better decisions on developing new capabilities.

Many studies have examined the performance implication of market orientation (Mavondo et al. 2005; Morgan et al. 2009; Voola and O'Cass 2010; Zhou et al. 2009) (for a review see: De Luca et al. 2010; Kirca et al. 2005). To understand and discover customers' expressed and latent needs and respond with new solutions, market oriented firms are more likely to widely scan the markets than less market oriented competitors (Day 1994) and cooperatively work with lead customers (Lusch and Vargo 2006). Due to the strong market sensing and linking capabilities involved in market orientation, firms adopting market orientation culture are more likely to uncover new market opportunities and undertake market experiments to improve marketing offerings (Atuahene-Gima 2005). Consequently, firms are able to continuously supply more appealing products/services than counterparts (Narver et al. 2004). Thus, customer satisfaction and firm performance can be improved.

Moreover, market oriented firms closely watch competitors, match the marketing initiatives of competitors quickly, and attempt to understand both the short-term strengths and weaknesses and long-term capabilities and strategies of current and potential competitors (Li et al. 2009). By this approach, firms can have a clear understanding of its own strengths and weakness as well as those of competitors, then firms can apply such information into business by either internalizing a competitor's strengths by imitation, or nullifying a competitor's strength by product innovation (Li and Calantone 1998). Thereby, firms can protect and/or improve their marketing positions.

Further, market oriented firms emphasise the coordination across functions. Such coordination helps effectively transform knowledge into functional competencies and integrate functional competencies into performance outcomes (Atuahene-Gima 2005; Grant 1996). Without coordination, conflicts and mistrust among functions impact a firm's effective use of its capabilities (Zahra and Nielsen 2002). Interfunctional coordination reduces conflict, promotes trust and commitment across functions, and enhances the efficient combination of different functional insights that are necessary for turning a firm's capabilities into superior business performance (Atuahene-Gima 2005; Kohli and Jaworski 1990).

Extant empirical studies support that firms with superior market orientation can achieve superior business performance (Gonzalez-Benito et al. 2009; Hult et al. 2005; Langerak 2003; Nasution and Mavondo 2008). It is noted in Morgan et al. (2009, p. 910) that market orientation 'represents a know-what advantage that enables the firm to be both more effective and efficient by allowing managers to select the most productive available resource combinations to match market conditions.' From the recent meta-analysis Kirca et al. (2005) found a positive, significant, and robust relationship between market orientation and organisational performance. Rodriguez Cano et al. (2004) reviewed relevant studies in 23 countries

and suggested that the relationship between market orientation and firm performance is positive and consistent.

However, there are some researches that do not find the strong support for this relationship (Atuahene-Gima 1995; Diamantopoulos and Hart 1993; Greenley 1995). There is also other research that argues that the relationship between market orientation and firm performance is an inverted U-shape by investigating proactive dimension of market orientation (Atuahene-Gima 2005; Tsai et al. 2008). Given the extensive research has been dedicated to test the relationship between market orientation and firm performance, this study will only focus on the mediating role of market orientation in the relationship between organisational resources and capabilities and firm performance.

In a transitional environment such as China, firms must confront not only the challenge of new competition, changing technologies and new customer preferences but also collapsing capabilities (Li and Atuahene-Gima 2002). Only exploiting existing capabilities and responding to current customers' needs are not sufficient and may become obsolete to competitive advantage. Systematic efforts are necessary to track the market changes and to refine existing capabilities by developing newly-required new capabilities for the new environment (Atuahene-Gima 2005). Competent market orientation is a promise for firm's adaptation in complex and turbulent environments in China. In conclusion, as a dynamic capability, market orientation is proposed to:

Proposition 11d. *Market orientation mediates the relationship between organisational resources and firm performance.*

Proposition 12d. *Market orientation mediates the relationship between organisational capabilities and firm performance and the development of new capabilities.*

2.15 New Capabilities and Firm Performance

In the consideration of measuring performance in business partnerships, two issues should be first solved: level of analysis (i.e., partnership, company, partner or company and partner) and the purposes of the partnerships evaluation (Olk 2002). The level of analysis in this study is individual firm involved in business partnerships. The purpose of evaluation is investigating the importance of dynamic capabilities on achieving a firm's sustainable competitive advantage in business partnerships. This study takes into account the private and common benefits accrued from participating in a business partnership and acknowledges that benefits often accumulate outside the partnership itself (Kale et al. 2000). As literature suggests that dynamic capabilities directly lead to firm performance and/or indirectly through the creation of new resources and resource configurations (Eisenhardt and Martin 2000; Teece 2007). Consistent with this segment of literature, two dimensions of performance measures are adopted in this study: the development of new capabilities and firm performance.

New capabilities refer to the new capabilities configurations or the improvement of organisational capabilities that leads to the improvement of firm performance. Prior literature shows that the value creation in partnerships can be the development or accumulation of new skills (Helfat et al. 2007), managerial and marketing capabilities (Chung et al. 2000; Lorenzoni and Lipparini 1999), manufacturing (Sherehiy et al. 2007; Zhang and Sharifi 2007) and technological capability (Ritter and Gemünden 2004; Zahra et al. 2000).

Firm performance measurement systems act as a means of monitoring and maintaining organisational control to ensure an organisation pursues strategies that lead to the achievement of strategic objectives (Lamberti and Noci 2010). How to measure firm performance has not achieved a consensus in management and marketing literature (Olk 2006). Literature shows that performance measures varied over time, across firms, cultures and industries and depended on the field of study (Hunt and Morgan 1995). The challenges of evaluating firm performance have been discussed for many years (Cameron and Whetten 1983; Campbell 1977; Scott 1992), leading to two main approaches in this field: searching for an ideal measure and recognizing the need for multiple measures.

Studies in the first approach advocate adopting one single measure of performance that provides greater reliability and validity than other measures. This is often an accounting return (e.g., return on assets, return on equity) or stock market reaction to an announced event (Olk 2006). Critiques of such measures indicate that accounting measures reflect past performance but do not provide information about future performance, and that the stock market reaction, although providing information about expected future performance, has not been linked to actual performance (Olk 2006). Another concern regarding to single measure is that it can be ineffective over time (Meyer and Gupta 1994); because the criteria are well known, firms tend to manage towards them. Over time this reduces the variance between high and low performers and the ability of the measure to indicate the level of performance is decreased.

Based on the above reasons, using multiple measures that collectively make up performance is suggested (Clark 1999; Mavondo et al. 2005; Venkatraman and Ramanujam 1986). One of the earliest approaches to advocate integrated performance measurement systems is the Strategic Measurement Analysis and Reporting Technique (SMART), also known as the Performance Pyramid (Cross and Lynch 1988). It attempts to integrate corporate objectives with operational performance measurement; however, it does not provide any mechanisms for identifying key performance measures (Sousa and Aspinwall 2010).

Other measurement systems are such as Keegan et al. (1989) proposed the performance measurement matrix approach in which performance measurement is measured based on four dimensions in a 2×2 matrix. The four cells include: internal/cost, internal/non-cost, external/cost, and external/non-cost. Zairi (1992) developed an implementation strategy for performance measurement systems but does not offer alternatives if obstacles are present.

Perhaps the best known performance measurement system is Kaplan and Norton's (1992, 1996) balanced scorecard (BSC). At the time of its introduction, this

innovative multi-dimensional approach to performance measurement was considered revolutionary (Marr and Schiuma 2003). As described by Kaplan and Norton (1992), performance is based upon four types of measures: financial, customer satisfaction, internal business processes and innovation, learning and growth. The premise of their argument is that determining performance is not a choice between short- or long-term, subjective or objective, internal or external, or financial or non-financial measures. Rather, it consists of all of these. The BSC is also used in association with the implementation of a strategic vision for the organisation (Kaplan and Norton 1996). Although the BSC has achieved widespread acceptance in practice, it has been challenged as requiring data that are difficult to collect and for uncertainty as to how to combine these data into an overall evaluation of performance (Meyer 2002).

Further, Ghalayini et al. (1997) proposed an integrated dynamic performance measurement system approach, that incorporates tools from literature into one system. It includes three main organisational dimensions: management, process improvement teams and factory shop floor, helping managers identify interactions among general areas of success and their associated performance measurement. However, the number of tools needed to use in such a framework makes it difficult to implement for small- and medium-sized firms, especially firms with low level of maturity (Sousa and Aspinwall 2010).

Neely et al. (1995) summarised the problems associated with the design of performance measurement systems are mainly related to three dimensions: the performance measures individually, the performance measurement system as complete system, and the relationships between the performance measurement system and the environment in which it operates. Some research addresses performance measurement in the context of specific organisational problems faced by manufacturing organisations (Ahmad et al. 2004; Forza and Salvador 2000; Gomes et al. 2007). Others chose to focus on specific approaches to manufacturing performance measurement, that are related to organisational change, specific projects, functions and business units (Gunasekaran et al. 2004; Hagedoorn and Cloudt 2003). However, due to the wide coverage of dimensions and large number of questions, they are very difficult to adopt in this study. Other studies have made substantial contributions on performance measurement in Chinese context (Li and Tang 2009; O'Connor et al. 2004; O'Connor et al. 2006), however, they have only focused on state-owned enterprises.

Cited in Mavondo et al. (2005), Ruekert and Walker (1987) developed a comprehensive model that assessed firm performance in terms of effectiveness, efficiency and adaptability. Effectiveness refers to the success of a firm's strategies in comparison to those of competitors in serving the target markets. Measures of this dimension include sales growth and market share. Efficiency denotes the outcomes of firm strategies in terms of the resources used in implementing them and is determined through the use of financial ratios such as return on investment. Adaptability refers to the extent to which the firm is successful in responding over time to changing market conditions (Mavondo et al. 2005).

Clark's (1999) framework has become a widely accepted taxonomy (Lamberti and Noci 2010; O'Sullivan and Abela 2007). Clark (1999) divided performance

measures into four main categories: single financial output measures (e.g., profit, sales and cash flows), non-financial measures (e.g., market share, customer satisfaction and customer loyalty), input measures (e.g., marketing assets and budget, marketing audits, behavioral control systems), and multiple measures (e.g., efficiency and effectiveness). In a similar view, Venkatraman and Ramanujam (1987) used measures of financial outcomes, operational efficiency and organisational effectiveness to capture the firm performance. Clark (2000) measured firm performance from perspectives of efficiency, adaptability, effectiveness and satisfaction.

Both objective and subjective measures are stressed in measuring firm performance (Cavusgil and Zou 1994; Kaplan and Norton 1992, 1996; Venkatraman and Ramanujam 1987). Objective measures relate to economic and financial indicators implying the absolute values of performance. Objective measures such as secondary data are believed to be less biased and more accurate, however, complete data may not always be available due to the confidentiality considerations or the data may not be available in the form needed of specific research issues. In circumstances where objective measures are insufficient to measure firm performance, subjective measures can be considered an appropriate alternative (Dess and Robinson 1984). Subjective measures of performance involve evaluations based on strategic attributes such as management's perception, competitive response and the achievement of objectives. Research has also found that subjective measures strongly correlated with objective measures (Powell 1992).

Adopting a multidimensional approach including both objective and subjective measures, firm performance in this study is assessed in terms of marketing effectiveness, financial performance and strategic performance. Therefore, marketing effectiveness is conceptualised as the ability of firms to meet short-term goals, capturing growth of sales revenue, gains in market share and new customers (Mavondo 1999, 2000). Marketing effectiveness, highly related to the operational efficiency in Venkatraman and Ramanujam (1987), is considered as a powerful performance metric because it is also a strong predictor of firm's profitability (Ambler and Putoni 2003). Clark (2000) asserted that the purpose of marketing effectiveness is to measure performance in terms of management's objectives. A gain in market share also reflects adaptation to a changing environment.

While an organisation's marketing objectives are linked with its financial objectives, a strategy designed to achieve superior marketing performance may not achieve superior financial performance and vice versa (Furrer et al. 2007; Srivastava et al. 1998, 1999). Financial performance reflects the accomplishment of financial goals of the firm, capturing the measures of return on assets, return on investment, gross margin, cash flow from market operations and profitability. Bharadwaj et al. (1993), in a conceptual review of sustainable competitive advantage, supported for a balanced perspective of measuring performance and proposed that competitive advantage can be expected to generate superior firm performance in terms of financial performance and marketing performance. Profitability of a firm is dependent on both objective and perceptual measures (Katsikeas et al. 1996). Thus, strategic performance is assessed, reflecting the organisation's achievement of long-term performance objectives in terms of overall customer satisfaction, financial and strategic

objectives, and value increase of the firm. Overall, the use of multiple measures of performance helps improve the content validity of the construct, and is also expected to strengthen the associations of firm performance with the set of independent variables being investigated.

2.16 Section Conclusion

This section examined relevant literature in the ways dynamic capabilities influence firm performance. We identified four important dynamic capabilities in this section and assessed their links with organisational resources, capabilities and firm performance. It is proposed that dynamic capabilities have direct influence on firm performance. It is also proposed that dynamic capabilities mediate the relationships between organisational resources and firm performance, and between organisational capabilities and firm performance and new capabilities. This leads to the following propositions and hypotheses:

P10: Dynamic capabilities are positively associated with firm performance.

- H47: Agility is positively associated with firm performance.
- H48: Network competence is positively associated with firm performance.
- H49: R&D competence is positively associated with firm performance.

P11a: Agility mediates the relationship between organisational resources and firm performance.

- H50: Agility mediates the relationship between organisational reputation and firm performance.
- H51: Agility mediates the relationship between financial resources and firm performance.
- H52: Agility mediates the relationship between brand reputation and firm performance.
- H53: Agility mediates the relationship between locational resources and firm performance.
- H54: Agility mediates the relationship between human resources and firm performance.

P11b: Network competence mediates the relationship between organisational resources and firm performance.

- H55: Network competence mediates the relationship between organisational reputation and firm performance.
- H56: Network competence mediates the relationship between financial resources and firm performance.
- H57: Network competence mediates the relationship between brand reputation and firm performance.

- H58: Network competence mediates the relationship between locational resources and firm performance.
- H59: Network competence mediates the relationship between human resources and firm performance.

P11c: R&D competence mediates the relationship between organisational resources and firm performance.

- H60: R&D competence mediates the relationship between organisational reputation and firm performance.
- H61: R&D competence mediates the relationship between financial resources and firm performance.
- H62: R&D competence mediates the relationship between brand reputation and firm performance.
- H63: R&D competence mediates the relationship between locational resources and firm performance.
- H64: R&D competence mediates the relationship between human resources and firm performance.

P11d: Market orientation mediates the relationship between organisational resources and firm performance.

- H65: Market orientation mediates the relationship between organisational reputation and firm performance.
- H66: Market orientation mediates the relationship between financial resources and firm performance.
- H67: Market orientation mediates the relationship between brand reputation and firm performance.
- H68: Market orientation mediates the relationship between locational resources and firm performance.
- H69: Market orientation mediates the relationship between human resources and firm performance.

P12a: Agility mediates the relationship between organisational capabilities and firm performance and the development of new capabilities.

- H70: Agility mediates the relationship between manufacturing capability and firm performance and the development of new capabilities.
- H71: Agility mediates the relationship between managerial capability and firm performance and the development of new capabilities.
- H72: Agility mediates the relationship between marketing capability and firm performance and the development of new capabilities.
- H73: Agility mediates the relationship between learning capability and firm performance and the development of new capabilities.
- H74: Agility mediates the relationship between technological capability and firm performance and the development of new capabilities.

P12b: Network competence mediates the relationship between organisational capabilities and firm performance and the development of new capabilities.

- H75: Network competence mediates the relationship between manufacturing capability and firm performance and the development of new capabilities.
- H76: Network competence mediates the relationship between managerial capability and firm performance and the development of new capabilities.
- H77: Network competence mediates the relationship between marketing capability and firm performance and the development of new capabilities.
- H78: Network competence mediates the relationship between learning capability and firm performance and the development of new capabilities.
- H79: Network competence mediates the relationship between technological capability and firm performance and the development of new capabilities.

P12c: R&D competence mediates the relationship between organisational capabilities and firm performance and the development of new capabilities.

- H80: R&D competence mediates the relationship between manufacturing capability and firm performance and the development of new capabilities.
- H81: R&D competence mediates the relationship between managerial capability and firm performance and the development of new capabilities.
- H82: R&D competence mediates the relationship between marketing capability and firm performance and the development of new capabilities.
- H83: R&D competence mediates the relationship between learning capability and firm performance and the development of new capabilities.
- H84: R&D competence mediates the relationship between technological capability and firm performance and the development of new capabilities.

P12d: Market orientation mediates the relationship between organisational capabilities and firm performance and the development of new capabilities.

- H85: Market orientation mediates the relationship between manufacturing capability and firm performance and the development of new capabilities.
- H86: Market orientation mediates the relationship between managerial capability and firm performance and the development of new capabilities.
- H87: Market orientation mediates the relationship between marketing capability and firm performance and the development of new capabilities.

- H88: Market orientation mediates the relationship between learning capability and firm performance and the development of new capabilities.
- H89: Market orientation mediates the relationship between technological capability and firm performance and the development of new capabilities.

2.17 Proposed Conceptual Model

The Resource-Based View was adopted and applied to explain the sources of firms' competitive advantage and the popularity of business partnerships. Resources are proprietary in nature. Firms select strategies and gain competitive advantage based on their resource endowments, especially those having VRIN characteristics (Barney 1991). Based on the RBV, inter-firm cooperative partnerships are used as a networking strategy to access and develop complementary advantages among firms (Palmatier et al. 2007), that leads to a rapid improvement of firms resource base. In addition to acquiring useful resources, firms enter partnerships to gain knowledge, learn new skills and develop new capabilities, that further advance a firm's resource base.

Based on this theoretical logic, five organisational resources (organisational reputation, financial resources, brand reputation, human resources and locational resources) and five organisational capabilities (manufacturing capability, managerial capability, marketing capability, learning capability and technological capability) were identified as important for a firm's competitive advantage. They were also considered as important driving factors of forming business partnerships.

However, merely possessing useful resources is an insufficient condition alone for value creation and does not guarantee the development of competitive advantage. Indeed, value is created only when resources are appropriately combined, manipulated, and deployed within the firm's environmental context. To extend the RBV in the context of business partnerships, DCA and a relationship marketing perspective were incorporated. The important role of integrative capability and relational capabilities was examined in achieving effective cooperation and superior firm performance in business partnerships.

Integrative capability purposefully focuses on creating an idiosyncratic combination of resources and capabilities, involving three main dimensions: inter-firm coordination, identifying and combining complementary, and compatible resources and capabilities. Relational capabilities refer to the informal safeguards in protecting the partners' interests from opportunism and facilitating the achievement of partnership objectives. Five important dimensions identified as important relational capabilities particularly in business relationships in China were: trust, commitment, conflict management, loyalty and *guanxi* between managers. It was proposed that integrative capability and relational capabilities had direct impacts on firm performance and influenced the impact of organisational resources and capabilities on firm performance and the development of new capabilities.

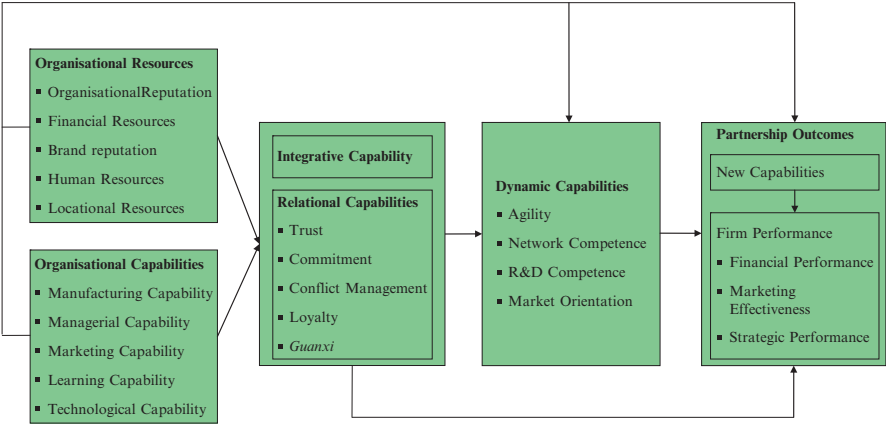


Fig. 2.5 The conceptual model of the study

By establishing strong integrative and relational quality in business partnerships, risks and uncertainties associated with resources exchange and new business exploration are reduced, thus firms are more likely to experiment with new skills and capabilities. Therefore, integrative and relational capabilities were also proposed to enhance the influences of organisational capabilities on the development of dynamic capabilities in partnerships.

Relationship marketing and DCA literature have indicated that establishing business partnerships is an effective mechanism to develop dynamic capabilities (Chen et al. 2009; Zollo and Winter 2002). Four important dynamic capabilities identified were: agility, network competence, R&D competence and market orientation. DCA argues that dynamic capabilities must be created through specific organisational routines and are embedded within firms’ distinctive routines and processes. Their dependence on firms’ prior history and causal ambiguity make dynamic capabilities inimitable and non-transferable. Therefore, dynamic capabilities were proposed to be positively associated with firm performance. DCA also argue that dynamic capabilities are the critical mechanisms linking useful resources and capabilities to sustainable superior firm performance in dynamic market environment. Thus, dynamic capabilities were proposed to mediate the relationships between organisational resources and firm performance, and between organisational capabilities and firm performance and new capabilities.

A conceptual model theoretically grounded on RBV, relationship marketing perspective and DCA is developed. It is believed that the combination of all factors constitutes a more comprehensive model that explains variations in superior firm performance in business partnerships. Figure 2.5 depicts the conceptual model. The following chapter will discuss the research methodology employed in testing the research propositions and hypotheses.

References

- Abernathy W, Clark KB (1985) Mapping the winds of creative destruction. *Res Policy* 14(1):3–22
- Abimbola T, Vallaster C (2007) Brand, organizational identity and reputation in SMEs: an overview. *Qual Mark Res Int J* 10(4):341–348
- Adeleye EO, Yusuf YY (2006) Towards agile manufacturing: models of competition and performance outcomes. *Int J Agile Syst Manage* 1(1):93–110
- Adler PS, Kwon SW (2002) Social capital: prospects for a new concept. *Acad Manage Rev* 27(1):17–40
- Adner R, Helfat CE (2003) Corporate effects and dynamic managerial capabilities. *Strateg Manage J* 24(10):1011–1025
- Afuah A (2002) Mapping technological capabilities into product markets and competitive advantage: the case of cholesterol drugs. *Strateg Manage J* 23(2):171–179
- Ahmad A, Mehra S, Pletcher M (2004) The perceived impact of JIT implementation on firms' financial/growth performance. *J Manuf Technol Manage* 15(2):118–130
- Ahuja G (2000) Collaboration networks, structural holes, and innovation: a longitudinal study. *Adm Sci Q* 45(3):425–456
- Alper S, Tjosvold D, Law SK (2000) Conflict management, efficacy, and performance in organizational teams. *Pers Psychol* 53(3):625–642
- Alvarez SA, Barney JB (2004) Organizing rent generation and appropriation: toward a theory of the entrepreneurial firm. *J Bus Ventur* 19(5):621–635. doi:10.1016/j.jbusvent.2003.09.002
- Ambler T, Putoni S (eds) (2003) Measuring marketing performance. Thomson Learning, London
- Ambrosini V, Bowman C (2009) What are dynamic capabilities and are they a useful construct in strategic management? *Int J Manage Rev* 11(1):29–49
- Amit R, Schoemaker PJH (1993) Strategic assets and organizational rent. *Strateg Manage J* 14(1):33–46
- Anand BN, Khanna T (2000) Do firms learn to create value? The case of alliances. *Strateg Manage J* 21(3):295–315
- Anand G, Ward PT (2004) Fit, flexibility and performance in manufacturing: coping with dynamic environments. *Prod Oper Manage* 13(4):369–385
- Anand J, Oriani R, Vassolo R (2007) Alliance activity as a dynamic capability: search and internalization of external technology. *Acad Manage Proc* 6:1–6
- Anderson JC, Narus J (1990) A model of distributor firm and manufacturer firm working partnerships. *J Mark* 54(1):42–58
- Anderson P, Tushman ML (1990) Technological discontinuities and dominant designs: a cyclical model of technological change. *Adm Sci Q* 35(4):604–633
- Anderson EW, Weitz BA (1992) The use of pledges to build and sustain commitment in distribution channels. *J Mark Res* 29(1):18–34
- Antunovich P, Laster DS, Mitnick S (2000) Are high-quality firms also high quality investments? *Curr Issues Econ Financ* 6(1):1–6
- Arend RJ, Bromiley P (2009) Assessing the dynamic capabilities view: spare change, everyone? *Strateg Org* 7:75–90
- Athanasopoulou P (2009) Relationship quality: a critical literature review and research agenda. *Eur J Mark* 43(5/6):583–610
- Athreye SS (2005) The Indian software industry and its evolving service capability. *Ind Corp Change* 14(3):393–418
- Atuahene-Gima K (1995) An exploratory analysis of the impact of market orientation on new product management: a contingency approach. *J Prod Innov Manage* 12(3):275–293
- Atuahene-Gima K (2005) Resolving the capability—rigidity paradox in new product innovation. *J Mark* 69(4):61–83
- Atuahene-Gima K, Ko A (2001) An empirical investigation of the effect of market orientation and entrepreneurial orientation alignment on product innovation. *Org Sci* 12(1):54–74
- Bailey EE, Helfat CE (2003) External management succession, human capital and firm performance: an integrative analysis. *Manage Decis Econ* 24(4):347–369

- Baker J (1996) Agility and flexibility, what's the difference?. The Cranfield School of Management, <http://dspace.lib.cranfield.ac.uk/handle/1826/1151>
- Balmer JMT, Gray ER (2003) Corporate brand reputation: what are they? What of them? *Eur J Mark* 37(7/8):972–997
- Bansal HS, McDougall GHG, Dikollo SS, Sedatole KL (2004) Relating e-satisfaction to behavioral outcomes: an empirical study. *J Serv Mark* 18(4):290–302
- Bantham JH, Celuch KG, Kasouf CJ (2003) A perspective of partnerships based on interdependence and dialectical theory. *J Bus Res* 56(4):265
- Barnett ML, Jermier JM, Lafferty BA (2006) Corporate reputation: the definitional landscape. *Corp Reput Rev* 9(1):26–38
- Barney JB (1991) Firm resources and sustained competitive advantage. *J Manage* 17(1):99–120
- Barney JB (2001a) Is the resource-based “view” a useful perspective for strategic management research? Yes. *J Manage Rev* 26(1):41–56
- Barney JB (2001b) Resource-based theories of competitive advantage: a ten-year retrospective on the resource-based view. *J Manage* 27:643–650
- Barney JB (2002) Strategic management: from informed conversation to academic discipline. *Acad Manage Exec* 16(2):53–57
- Barney JB, Arian AM (2001) The resource-based view: origins and implications. In: Hitt MA, Freeman RE, Harrison JS (eds) *The Blackwell handbook of strategic management*. Blackwell, Oxford, pp 124–188
- Barney JB, Clark DN (2007) *Resource-based theory: creating economic rents and competitive advantage*. Oxford University Press, Oxford
- Barney JB, Hansen MH (1994) Trustworthiness as a source of competitive advantage. *Strateg Manage J* 15:175–190
- Beamish PW (1994) Joint ventures in LDCs: partner selection and performance. *Manage Int Rev* 34(1):60–74
- Bennett R, Rundle-Thiele S (2002) A comparison of attitudinal loyalty measurement approaches. *J Brand Manage* 9(3):193–209
- Bernardes ES, Hanna MD (2009) A theoretical review of flexibility, agility and responsiveness in the operations management literature. *Int J Oper Prod Manage* 29(1):30–53
- Berthon P, Hulbert J, Pitt L (1999) To serve or create? Strategic orientations towards customers and innovation. *Calif Manage Rev* 42(1):37–58
- Bettencourt LA, Brown SW (1997) Contact employees: relationships among workplace fairness, job satisfaction and prosocial service behaviors. *J Retail* 73(1):39–61
- Bettis R, Hitt MA (1995) The new competitive landscape. *Strateg Manage J* 16(1):7–19
- Bharadwaj SG, Varadarajan PR, Fahy J (1993) Sustainable competitive advantage in service industries: a conceptual model and research. *J Mark* 57(4):83–100
- Bhatnagar J (2006) Measuring organizational learning capability in Indian managers and establishing firm performance linkage: an empirical analysis. *Learn Org* 13(5):416–433
- Bjorkman I, Lu Y (1999) A corporate perspective on the management of human resources in China. *J World Bus* 34(1):16–25
- Bontis N, Crossan M, Hulland J (2002) Managing an organizational learning system by aligning stocks and flows. *J Manage Stud* 39(4):437–469
- Bourgeois LI (1981) On the measurement of organisational slack. *Acad Manage Rev* 6(1):29–39
- Bourgeois LI, Singh V (1983) Organizational slack and political behavior among top management teams. *Acad Manage Proc* 8(1):43–47
- Bowman C, Ambrosini V (2003) How the resource-based and the dynamic capability views of the firm inform corporate-level strategy. *Br J Manage* 14(4):289–303
- Brady T, Davies A (2004) Building project capabilities: from exploratory to exploitative learning. *Org Stud* 25(9):1601–1621
- Bronn C, Bronn PS (2005) Reputation and organizational efficiency: a data envelopment analysis study. *Corp Reput Rev* 8(1):45–58
- Brown SL, Eisenhardt KM (1997) The art of continuous change: linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Adm Sci Q* 42(1):1–34

- Brush T, Bromiley P, Hendrickx M (2000) The free cash flow hypothesis for sales growth and firm performance. *Strateg Manage J* 21(4):455–472
- Caloghirou Y, Hondroyiannis G, Vrontas N (2003) The performance of research partnerships. *Manage Decis Econ* 24(1):85–99
- Caloghirou Y, Kastelli I, Tsakanikas A (2004) Internal capabilities and external knowledge sources: complements or substitutes for innovative performance. *Technovation* 24(1):29–39
- Cameron K, Whetten D (1983) Organizational effectiveness: one model or several? In: Cameron K, Whetten D (eds) *Organizational effectiveness: a comparison of multiple models*. Academic, San Diego, pp 1–24
- Campbell J (1977) On the nature of organizational effectiveness. In: Goodman P, Pennings JM (eds) *New perspectives on organizational effectiveness*. Jossey-Bass, San Francisco, pp 13–55
- Capron L, Hulland J (1999) Redeployment of brand reputation, sales forces, and general marketing management expertise following horizontal acquisitions: a resource-based view. *J Mark* 63(2):41–54
- Carlos FG, Mahmoud MY, Joao VL (2007) An empirical investigation of manufacturing performance measures utilization: the perspectives of executives and financial analysts. *Int J Prod Perform Manage* 56(3):187–204
- Carmeli A, Tishler A (2004) The relationships between intangible organizational elements and organizational performance. *Strateg Manage J* 25(13):1257–1278
- Carmeli A, Tishler A (2005) Perceived organizational reputation and organizational performance: an empirical investigation of industrial enterprises. *Corp Reput Rev* 8(1):13–30
- Carter SM, Ruefli TW (2006) Intra-industry reputation dynamics under a resource-based framework: assessing the durability factor. *Corp Reput Rev* 9(1):3–25
- Castanias RP, Helfat CE (1991) Managerial resources and rents. *J Manage* 17(1):155–171
- Castanias RP, Helfat CE (2001) The managerial rents model: theory and empirical analysis. *J Manage* 27(6):661–678
- Cater T, Cater B (2010) Product and relationship quality influence on customer commitment and loyalty in B2B manufacturing relationships. *Ind Mark Manage* 39(8):1321–1333. doi:[10.1016/j.indmarman.2010.02.006](https://doi.org/10.1016/j.indmarman.2010.02.006)
- Cavusgil ST, Zou S (1994) Marketing strategy-performance relationship: an investigation of the empirical link in export market ventures. *J Mark* 58(1):1–21
- Cegarra-Navarro JG (2005) An empirical investigation of organizational learning through strategic alliances between SMEs. *J Strateg Mark* 13(1):3–16
- Cepeda G, Vera D (2007) Dynamic capabilities and operational capabilities: a knowledge management perspective. *J Bus Res* 60(5):426–437
- Chan PS, Riess G (2004) The strategic value of a CEO. *Probl Perspect Manage* 3:153–162
- Chan APC, Chan DWM, Chiang YH, Tang BS, Chan EHW, Ho KSK (2004a) Exploring critical success factors for partnering in construction projects. *J Constr Eng Manage* 130(2):188–198
- Chan LLM, Shaffer MA, Snape E (2004b) In search of sustained competitive advantage: the impact of organizational culture, competitive strategy and human resources management practices on firm performance. *Int J Hum Res Manage* 15(1):17–35
- Chang S-J, Singh H (1999) The impact of modes of entry and resource fit on modes of exist by multibusiness firms. *Strateg Manage J* 20(11):1019–1035
- Chattopadhyay P, Glick WH, Huber GP (2001) Organizational actions in response to threats and opportunities. *Acad Manage J* 44(5):937–955
- Chen H, Chen T (2003) Governance structures in strategic alliances: transaction cost versus resource-based perspective. *J World Bus* 38(1):1–14
- Chen G, Liu C, Tjosvold D (2005a) Conflict management for effective top management teams and innovation in China. *J Manage Stud* 42(2):277–300
- Chen Y, Tjosvold D, Fang SS (2005b) Working with foreign managers: conflict management for effective leader relationships in China. *Int J Confl Manage* 16(3):265–286
- Chen H-h, Lee P-y, Lay T-j (2009) Drivers of dynamic learning and dynamic competitive capabilities in international strategic alliances. *J Bus Res* 62(12):1289–1295

- Chesbrough H, Rosenbloom RS (2002) The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Ind Corp Change* 11(3):529–555
- Child J, Faulkner D, Tallman SB (2005) Cooperative strategy. Oxford University Press, New York
- Chiu YTH (2009) How network competence and network location influence innovation performance. *J Bus Ind Mark* 24(1):46–55
- Chiva R, Alegre J, Lapiedra R (2007) Measuring organizational learning capability among the workforce. *Int J Manpow* 28(3/4):224–242
- Christensen CM, Bower JL (1996) Customer power, strategic investment, and the failure of leading firms. *Strateg Manage J* 17(3):197–218
- Chu GC, Ju Y (1993) The great wall in ruins. State University of New York Press, Albany
- Chung SA, Singh H, Lee K (2000) Complementarity, status similarity and social capital as drivers of alliance formation. *Strateg Manage J* 21:1–22
- Chung YC, Tien SW, Hsieh CH, Tsai CH (2008) A study of the business value of Total Quality Management. *Total Qual Manag Bus Excell* 19(4):367–379
- Clark BH (1999) Marketing performance measures: history and interrelationships. *J Mark Manage* 15(8):711–732
- Clark DN (2000) Implementation issues in core competence strategy making. *Strateg Change* 9(1):115–127
- Clark KB, Fujimoto T (1991) Product development performance: strategy, organization, and management in the World Auto Industry Harvard Business School Press Books. Retrieved 3 Feb 2010, from http://books.google.com.au/books?id=7cCAASTW6IQC&printsec=frontcover&dq=Clark+%26+Fujimoto,+1991+product+development&source=bl&ots=vtYV1ZdPoJ&sig=NHXPxdmc_MIjo3nepzuBBhNcRko&hl=en&ei=DtZYtJqtNsqw cYHU_L8l&sa=X&oi=book_result&ct=result&resnum=1&ved=0CBwQ6AEwAA#v=onepage&q=Clark%20%26%20Fujimoto%2C%201991%20product%20development&f=false
- Clercq DD, Sapienza HJ (2006) Effects of relational capital and commitment on venture capitalists' perception of portfolio company performance. *J Bus Ventur* 21(3):326–347
- Cocroft B-A, Ting-Toomey S (1994) Facework in Japan and the United States. *Int J Intercult Rel* 18(5):469–506
- Coff RW (1999) When competitive advantage doesn't lead to performance: the resource-based view and stakeholder bargaining power. *Org Sci* 10(2):119–133
- Cohen WM, Levinthal DA (1990) Absorptive capacity: a new perspective on learning and innovation. *Adm Sci Q* 35(1):128–152
- Collins JD, Hitt MA (2006) Leveraging tacit knowledge in alliances: the importance of using relational capabilities to build and leverage relational capital. *J Eng Technol Manage* 23(3):147–167
- Collins RS, Schmenner R (1993) Achieving rigid flexibility: factory focus for the 1990s. *Eur Manage J* 11(4):443–447
- Collins JD, Holcomb TR, Certo ST, Hitt MA, Lester RH (2009) Learning by doing: cross-border mergers and acquisitions. *J Bus Res* 62(12):1329–1334
- Collis DJ (1994) Research note: how valuable are organizational capabilities? *Strateg Manage J* 15(1):143–152
- Coombs JE, Bierly PE (2006) Measuring technological capability and performance. *R&D Manage* 36(4):421–438
- Cooper RG (1983) The impact of new product strategies. *Ind Mark Manage* 12(4):243–256
- Corbett LM, Claridge GS (2002) Key manufacturing capability elements and business performance. *Int J Prod Res* 40(1):109–131
- Crant JM (2000) Proactive behavior in organizations. *J Manage* 26(3):435–462
- Cravens K, Piercy N (2000) Assessing the performance of strategic alliances: matching metrics to strategies. *Eur Manage J* 18(5):529
- Crook TR, Ketchen DJ Jr, Combs JG, Todd SY (2008) Strategic resources and performance: a meta-analysis. *Strateg Manage J* 29(11):1141–1154
- Crosby LA, Evans KR, Cowles D (1990) Relationship quality in services selling: an interpersonal influence perspective. *J Mark* 54(1):68–81

- Cross KF, Lynch RL (1988) The SMART way to define and sustain success. *Nat Prod Rev* 9(1):23–33
- Crossan M, Lane HW, White RE (1999) An organizational learning framework: from intuition to institution. *Acad Manage Rev* 24(3):522–537
- Cua KO, McKone KE, Schroeder RG (2001) Relationships between implementation of TQM, JIT, and TPM and manufacturing performance. *J Oper Manage* 19(6):675–694
- Cullen JB, Johnson JL, Sakano T (2000) Success through commitment and trust: the soft side of strategic alliance management. *J World Bus* 35(3):223–241
- Culpan R, Kumar N (1994) Co-operative ventures of Western firms in Eastern Europe: the case of German companies. Academic, London
- Cyert RM, March JG (1963) A behavioral theory of the firm. Prentice-Hall, New York
- D'Aveni RA (1994) Hypercompetition: managing the dynamics of strategic maneuvering. Free Press, New York
- Da Silva GJC (2006) Effects of simplicity and discipline on operational flexibility: an empirical reexamination of the rigid flexibility model. *J Oper Manage* 24(6):932–947
- Daniel F, Lohrke FT, Fornaciari CJ, Turner RA Jr (2004) Slack resources and firm performance: a meta-analysis. *J Bus Res* 57(6):565–574
- Danneels E (2002) The dynamics of product innovation and firm competences. *Strateg Manage J* 23:1095–1121
- Danneels E (2008) Organizational antecedents of second-order competences. *Strateg Manage J* 29(5):519–543
- Das A (2001) Towards theory building in manufacturing flexibility. *Int J Prod Res* 39(18):4153–4177
- Das TK, Teng B (1998) Resource and risk management in the strategic alliance making process. *J Manage* 24(1):21–42
- Das TK, Teng B (2000) A resource-based theory of strategic alliances. *J Manage* 26(1):31–61
- Das TK, Teng B (2001) Trust, control, and risk in strategic alliances: an integrated framework. *Org Stud* 22(2):251–283
- Das TK, Teng B (2004) The risk-based view of trust: a conceptual framework. *J Bus Psychol* 19(1):85–116
- Davies H, Leung T, Luk S, Wong YH (1995) The benefits of guanxi: the value of relationships in developing the Chinese market. *Ind Mark Manage* 24(2):207–214
- Day GS (1994) The capabilities of market-driven organizations. *J Mark* 58(1):37–52
- Day GS (1995) Advantageous alliances. *J Acad Mark Sci* 23(4):297–300
- Day GS (1999) The market driven organization-understanding, attracting and keeping valuable customers. The Free Press, New York
- De Carolis D (2003) Competencies and limitability in the pharmaceutical industry: an analysis of their relationship with firm performance. *J Manage* 29(1):27–50
- De Carolis D, Deeds D (1999) The impact of stocks and flows of organizational knowledge on firm performance: an empirical evaluation of the biotechnology industry. *Strateg Manage J* 20(1):953–968
- De Chernatony L (1999) Brand management through narrowing the gap between brand identity and brand reputation. *J Mark Manage* 15(1–3):157–179
- De Luca LM, Atuahene-Gima K (2007) Market knowledge dimensions and cross-functional collaboration: examining the different routes to product innovation performance. *J Mark* 71:95–112
- De Luca LM, Verona G, Vicari S (2010) Market orientation and R&D effectiveness in high-technology firms: an empirical investigation in the biotechnology industry. *J Prod Innov Manage* 27(3):299–320
- De Ruyter K, Moorman L, Lemmink J (2001) Antecedents of commitment and trust in customer-supplier relationships in high technology markets. *Ind Mark Manage* 30(3):271–286
- Deeds D, De Carolis D, Coombs JE (2000) Dynamic capabilities and new product development in high technology ventures: an empirical analysis of new biotechnology firms. *J Bus Ventur* 15(2):211–229
- Deephhouse D (2000) Media reputation as a strategic resource: an integration of mass communication and resource-based theories. *J Manage* 26(6):1091–1112
- Delerue-Vidot H (2006) Opportunism and unilateral commitment: the moderating effect of relational capital. *Manage Decis* 44(6):737–751

- Deshpande R, Farley JU, Webster F (1993) Corporate culture, customer orientation and innovativeness in Japanese firms: a quadrad analysis. *J Mark* 57(1):23–37
- Dess GG, Robinson RB Jr (1984) Measuring organizational performance in the absence of objective measures: the case of the privately-held firm and conglomerate business unit. *Strateg Manage J* 5(3):265–273
- Deutsch M (1969) Conflicts: productive and destructive. *J Soc Issues* 25(1):7–41
- Deutsch M (1980) Fifty years of conflict. In: Festinger L (ed) *Four decades of social psychology*. Oxford University Press, New York
- Devan J, Millan K, Shirke P (2005) Balancing short- and long-term performance. *McKinsey Q* 1:31–33
- Di Stefano G, Peteraf MA, Verona G (2010) Dynamic capabilities deconstructed: a bibliographic investigation into the origins, development, and future directions of the research domain. *Ind Corp Change* 19(4):1187–1204
- Diamantopoulos A, Hart S (1993) Linking market orientation and company performance: preliminary evidence on Kohli and Jaworski's framework. *J Strateg Mark* 1(2):93–122
- Dickinson S, Barker A (2007) Evaluations of branding alliances between non-profit and commercial brand partners: the transfer of affect. *Int J Nonprof Volunt Sec Mark* 12(1):75–89
- Dierickx I, Cool K (1989) Asset stock accumulation and sustainability of competitive advantage. *Manage Sci* 35(12):1504–1511
- Dionne SD, Yammarino FJ, Atwater LE, James LR (2002) Neutralizing substitutes for leadership theory: leadership effects and common-source bias. *J Appl Psychol* 87(3):454–464
- Dollinger MJ, Golden PA, Saxton T (1997) The effect of reputation on the decision to joint venture. *Strateg Manage J* 18(2):127–140
- Donaldson L (2001) *The contingency theory of organizations*. Sage, Thousand Oaks
- Doney PM, Cannon JP (1997) An examination of the nature of trust in buyer-seller relationships. *J Mark* 61(1):35–51
- Dong L, Glaister KW (2006) Motives and partner selection criteria in international strategic alliances: perspectives of Chinese firms. *Int Bus Rev* 15(6):577–600
- Dosi G, Faillo M, Marengo L (2008) Organizational capabilities, patterns of knowledge accumulation and governance structures in business firms: an introduction. *Org Stud* 29(8/9):1165–1185
- Dowling GR (2001) *Creating corporate reputations*. Oxford University Press, Oxford
- Dowling GR (2006) How good corporate reputations create corporate value. *Corp Reput Rev* 9(2):134–143
- Doz Y (1996) The evolution of cooperation in strategic alliances: initial conditions or learning processes? *Strateg Manage J* 17(Special issue):55–83
- Drucker PF (1968) Comeback of the entrepreneur. *Manager Today*:23–30
- Dutta S, Narasimhan O, Rajiv S (1999) Success in high-technology markets: is marketing capability critical? *Mark Sci* 18(4):547–568
- Dutta S, Zbaracki MJ, Bergen M (2003) Pricing process as a capability: a resource-based perspective. *Strateg Manage J* 24:615–630
- Dyer JH, Chu W (2003) The role of trustworthiness in reducing transaction costs and improving performance: empirical evidence from the United States, Japan and Korea. *Org Sci* 14(57–68)
- Dyer JH, Hatch NW (2006) Relation-specific capabilities and barriers to knowledge transfers: creating advantage through network relationships. *Strateg Manage J* 27(8):701–719
- Dyer JH, Nobeoka K (2000) Creating and managing a high-performance knowledge-sharing network: the Toyota case. *Strateg Manage J* 21(3):345–367
- Dyer JH, Singh H (1998) The relational view: cooperative strategy and sources of interorganizational competitive advantage. *Acad Manage Rev* 23(4):660–679
- Easterby-Smith M (1997) Disciplines of organizational learning: contributions and critiques. *Hum Relat* 50(9):1085–1113
- Easterby-Smith M, Prieto IM (2008) Dynamic capabilities and knowledge management-the integrative role of learning. *Br J Manage* 19(3):235–249
- Easterby-Smith M, Lyles MA, Peteraf MA (2009) Dynamic capabilities: current debates and future directions. *Br J Manage* 20(S1):S1–S8

- Eisenhardt KM, Ahuja G (2007) Dynamic capabilities and adaptation. Retrieved from <http://www.druid.dk/streaming/ds2007/onsdag/msh.htm>
- Eisenhardt KM, Bourgeois LJ (1988) Politics of strategic decision making in high-velocity environments. *Acad Manage J* 31(4):737–770
- Eisenhardt KM, Brown SL (1999) Patching–re stitching business portfolios in dynamic markets. *Harv Bus Rev* 77(3):72–82
- Eisenhardt KM, Martin JA (2000) Dynamic capabilities: what are they? *Strateg Manage J* 21(10/11):1105–1121
- Eisenhardt KM, Schoonhoven CB (1996) Resource-based view of strategic alliance formation: strategic and social effects in entrepreneurial firms. *Org Sci* 7(2):136–150
- Eisenhardt KM, Kaywajy JL, Bourgeois LI (1998) How management teams can have a good fight. *Harv Bus Rev* 75(4):77–84
- Emden Z, Calantone RJ, Droge C (2006) Collaborating for new product development: selecting the partner with maximum potential to create value. *J Prod Innovat Manage* 23(4):330–341
- Emiliani ML (2003) The inevitability of conflict between buyers and sellers. *Supply Chain Manage Int J* 8(2):107–115
- Ensley MD, Pearson AW, Amason AC (2002) Understanding the dynamics of new venture top management teams. Cohesion, conflict, and new venture performance. *J Bus Ventur* 17(4):365–386
- Erdem T, Swait J (1998) Brand equity as a signalling phenomenon. *J Consum Psychol* 7(2):131–157
- Ettlie JE, Pavlou PA (2006) Technology-based new product development partnerships. *Decis Sci* 37(2):117–147
- Evans S (1991) Strategic flexibility for high technology manoeuvres: a conceptual framework. *J Manage Stud* 28(1):69–89
- Fahy J (1996) A resource-based perspective on global competition: conceptual model and research hypotheses. In: *International business: taking stock and moving forward*. Academy of International Business Conference Proceedings. Aston Business School, Birmingham, p 449
- Fahy J, Hooley G, Cox T, Beracs J, Fonfara K, Snoj B (2000) The development and impact of marketing capabilities in central Europe. *J Int Bus Stud* 31(1):63–81
- Fan Y (2002) Questioning guanxi: definition, classification and implication. *Int Bus Rev* 11(5):543–561
- Ferdows K, De Meyer A (1990) Lasting improvements in manufacturing performance: in search of a new theory. *J Oper Manage* 9(2):168–184
- Fichman M, Levinthal DA (1991) Honeymoons and the liability of adolescence: a new perspective on duration dependence in social and organizational relationships. *Acad Manage Rev* 16(2):442–468
- Figueiredo PN (2003) Learning processes features: how do they influence inter-firm differences in technological capability-accumulation paths and operational performance improvement. *Int J Technol Manage* 26(7):655–693
- Fiol CM (1991) Managing culture as a competitive resource: an identity-based view of sustainable competitive advantage. *J Manage* 17(1):191–211
- Fleming L (2001) Recombinant uncertainty in technological search. *Manage Sci* 47(1):117–132
- Fock H, Woo K (1998) The China market: strategic implication of guanxi. *Bus Strategy Rev* 7(4):433–444
- Fombrun CJ (1996) *Reputation: realizing value from the corporate image*. Harvard Business School Press, Boston
- Fombrun CJ, Pan M (2006) Corporate reputations in China: how do consumers feel about companies? *Corp Reput Rev* 9(3):165–170
- Fombrun CJ, Van Riel CBM (1997) The reputational landscape. *Corp Reput Rev* 1(1):5–13
- Fombrun CJ, Van Riel CBM (2004) *Fame and fortune: how the world's top companies develop winning reputations*. Pearson Publishing and the Financial Times, New York
- Fong PS, Hills MJ, Hayles CS (2007) Dynamic knowledge creation through value management teams. *J Manage Eng* 23(1):40–49
- Ford D (1997) *Understanding business markets*, 2nd edn. The Dryden Press, London

- Forza C, Salvador F (2000) Assessing some distinctive dimensions of performance feedback information in high performing plants. *Int J Oper Prod Manage* 20(3):359–385
- Franco AM, Sarkar M, Agarwal R, Echambadi R (2006) The moderating effects of technological capabilities on the market pioneering–firm survival relationship. *Acad Manag Proc* 2006(1):11–16
- Friedman R, Chi SC, Liu LA (2006) An expectancy model of Chinese-American differences in conflict-avoiding. *J Int Bus Stud* 37(1):76–97
- Fritz W (1996) Market orientation and corporate success: findings from Germany. *Eur J Mark* 30(8):59–74
- Fullerton RR, McWatters CS (2001) The production performance benefits from JIT implementation. *J Oper Manage* 19(1):81–96
- Furrer O, Alexandre MT, Sudharshan D (2007) The impact of resource-strategy correspondence on marketing performance - financial performance tradeoffs. [Article]. *J Strateg Mark* 15(2/3): 161–183
- Gabbioneta C, Ravasi D, Mazzola P (2007) Exploring the drivers of corporate reputation: a study of Italian securities analysts. *Corp Reput Rev* 10(2):99–123
- Gao GY, Pan Y, Tse DK, Yim CK (2006) Market share performance of foreign and domestic brand reputation in China. *J Int Mark* 14(2):32–51
- Garcia-Muina FE, Navas-Lopez JE (2007) Explaining and measuring success in new business: the effect of technological capabilities on firm results. *Technovation* 27(1):30–46
- Garrett RP, Covin JG, Slevin DP (2009) Market responsiveness, top management risk taking, and the role of strategic learning as determinants of market pioneering. *J Bus Res* 62(8):782–788
- Gatewood RD, Gowan MA, Lautenschlager GJ (1993) Corporate image, recruitment image and initial job choice decisions. *Acad Manage J* 36(2):414–427
- Geletkanycz MA, Boyd BK, Finkelstein S (2001) The strategic value of CEO external directorate networks: implications for CEO compensation. *Strateg Manage J* 22(9):889–898
- George G (2005) Slack resources and the performance of privately held firms. *Acad Manage J* 48(3):661–676
- Gerwin D (1993) Manufacturing flexibility: a strategic perspective. *Manage Sci* 39(3):395–410
- Geylani T, Inman JJ, Ter Hofstede F (2008) Image reinforcement or impairment: the effects of co-branding on attribute uncertainty. *Mark Sci* 27(4):730–744
- Geyskens I, Steenkamp JB, Scheer LK, Kumar N (1996) The effects of trust and interdependence on relationship commitment: a transatlantic study. *Int J Res Mark* 13(4):303–317
- Ghalayini AM, Noble JS, Crowe TJ (1997) An integrated dynamic performance measurement system for improving manufacturing competitiveness. [Article]. *Int J Prod Econ* 48(3): 207–225
- Gilliland DI, Bello DC (2002) Two sides to attitudinal commitment: the effect of calculative and loyalty commitment on enforcement mechanisms in distribution channels. *J Acad Mark Sci* 30(1):24–43
- Goh SC (2003) Improving organizational learning capability: lessons from two case studies. *Learn Org* 10(4):216–227
- Goh S, Richards G (1997) Benchmarking the learning capability of organizations. *Eur Manage J* 15(5):575–583
- Goldman SL, Nagel RN (1993) Management, technology and agility: the emergence of a new era in manufacturing. *Int J Technol Manage* 8(1/2):18–38
- Goldman SL, Nagel RN, Preiss K (1995) Agile competitors and virtual organizations: strategies for enriching the customer. Van Nostrand Reinhold, New York
- Gomes CF, Yasin MM, Lisboa JV (2007) An empirical investigation of manufacturing performance measures utilization: the perspectives of executives and financial analysts. *Int J Prod Perform Manage* 56(3):187–204
- Gonzalez-Benito O, Gonzalez-Benito J, Munoz-Gallego PA (2009) Role of entrepreneurship and market orientation in firms' success. *Eur J Mark* 43(3/4):500–522
- Gotsi M, Wilson A (2001) Corporate reputation management: "living the brand". *Manage Decis* 39(2):99–105
- Grant RM (1991) The resource-based theory of competitive advantage: implications for strategy formulation. *Calif Manage Rev* 33(3):114–135

- Grant RM (1996) Prospering in dynamically-competitive environments: organizational capability as knowledge integration. *Org Sci* 7(4):375–388
- Gratchev MV, Bobina MA (2001) Financial resources for new business in Russia: desirable vs available. *Venture Cap* 3(3):263–274
- Greenley GE (1995) Market orientation and company performance: empirical evidence from UK companies. *Br J Manage* 6(1):1–14
- Grewal R, Tansuhaj P (2001) Building organizational capabilities for managing economic crisis: the role of market orientation and strategic flexibility. *J Mark* 65(2):67–80
- Griffith DA, Harvey MG (2001) A resource perspective of global dynamic capabilities. *J Int Bus Stud* 32(3):597–607
- Griffith DA, Harvey MG (2004) The influence of individual and firm level social capital of marketing managers in a firm's global network. *J World Bus* 39(3):244–254
- Griffith DA, Myers MB, Harvey MG (2006) An investigation of national culture's influence on relationship and knowledge resources in interorganizational relationships between Japan and the United States. *J Int Mark* 14(3):1–32
- Grinstein A (2008) The effect of market orientation and its components on innovation consequences: a meta-analysis. *J Acad Mark Sci* 36:166–173
- Grobler A, Grubner A (2006) An empirical model of the relationships between manufacturing capabilities. *Int J Oper Prod Manage* 26(5):458–485
- Gulati R (1995a) Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Acad Manage J* 38(1):85–112
- Gulati R (1995b) Social structure and alliance formation patterns: a longitudinal analysis. *Adm Sci Q* 40:619–652
- Gulati R (1999) Network location and learning: the influence of network resources and firm capabilities on alliance formation. *Strateg Manage J* 20(5):397–420
- Gulati R, Gargiulo M (1999) Where do interorganizational networks come from? *Am J Sociol* 104(5):1439–1493
- Gulati R, Singh H (1998) The architecture of cooperation: managing coordination costs and appropriation concerns in strategic alliances. *Adm Sci Q* 43:781–814
- Gulati R, Nohria N, Zaheer A (2000) Strategic networks. *Strateg Manage J* 21(3):203–215
- Gunasekaran A (1999) Agile manufacturing: a framework for research and development. *Int J Prod Econ* 62(1/2):87–105
- Gunasekaran A, Patel C, McGaughey RE (2004) A framework for supply chain performance measurement. *Int J Prod Econ* 87(3):333–347
- Hagedoorn J (2006) Understanding the cross-level embeddedness of interfirm partnership formation. *Acad Manage Rev* 31(3):670–680
- Hagedoorn J, Cloudt M (2003) Measuring innovative performance: is there an advantage in using multiple indicators? *Res Policy* 32(8):1365–1379
- Hagedoorn J, Roijakkers N, Van Kranenburg H (2006) Inter-firm R&D networks: the importance of strategic network capabilities for high-tech partnership formation. *Br J Manage* 17(1):39–53
- Hakansson H, Ford D (2002) How should companies interact in business networks. *J Bus Res* 55(2):133–139
- Hall R (1992) The strategic analysis of intangible resources. *Strateg Manag J* 13(2):135–144
- Hambrick DC, Mason PA (1984) Upper echelons: the organization as a reflection of its top managers. *Acad Manage Rev* 9(1):193–206
- Hamel G (1991) Competition for competence and inter-partner learning within international strategic alliances. *Strateg Manage J* 12(Special issue):83–103
- Hamel G, Prahalad CK (1994) Competing for the future. *Harv Bus Rev*:122–128
- Hamel G, Doz YL, Prahalad CK (1989) Collaborate with your competitors—and win. *Harv Bus Rev* 67(1):133–139
- Hargadon A, Sutton RI (1997) Technology brokering and innovation in a product development firm. *Adm Sci Q* 42:716–749
- Harris D, Helfat CE (1997) Specificity of CEO human capital and compensation. *Strateg Manage J* 18(11):895–920

- Harrison JS, Hitt MA, Hoskisson RE, Ireland RD (1991) Synergies and post-acquisition performance: differences versus similarities in resource allocations. *J Manage* 17(1):173–190
- Harrison JS, Hitt MA, Hoskisson RE, Ireland RD (2001) Resource complementarity in business combinations: extending the logic to organizational alliances. *J Manage* 27:679–690
- Hatch NW, Dyer JH (2004) Human capital and learning as a source of sustainable competitive advantage. *Strateg Manage J* 25:1155–1178
- Hay DA, Morris DJ (1991) *Industrial economics and organisation: theory and evidence*. Oxford University Press, Oxford
- Hayes RH, Schmenner RW (1978) How should you organize manufacturing? *Harv Bus Rev* 56(1):105–118
- Heimeriks KH, Schreiner M (2002) The influence of relational quality and alliance capacity on alliance performance: a conceptual framework. Paper presented at the The Strategic Management Society, Paris
- Helfat CE (1997) Know-how and asset complementarity and dynamic capability accumulation: the case of R&D. *Strateg Manage J* 18(5):339–360
- Helfat CE, Peteraf MA (2003) The dynamic resource-based view: capability lifecycles. *Strateg Manage J* 24(10):997–1010
- Helfat CE, Peteraf MA (2009) Understanding dynamic capabilities: progress along a developmental path. *Strateg Org* 7(1):91–102
- Helfat CE, Raubitschek RS (2000) Product sequencing: co-evolution of knowledge, capabilities and products. *Strateg Manage J* 21(10/11):961–979
- Helfat CE, Finkelstein S, Mitchell W, Peteraf M, Singh H, Teece DJ et al (2007) *Dynamic capabilities: understanding strategic change in organizations*. Blackwell, Carlton
- Hempel PS, Zhang Z-X, Dean T (2009) Conflict management between and within teams for trusting relationships and performance in China. *J Org Behav* 30(1):41–65
- Henderson R, Cockburn I (1994) Measuring competence? Exploring firm effects in pharmaceutical research. *Strateg Manage J Summer Spec Issue* 15(1):63–84
- Henderson R, Cockburn I (2000) Measuring competence? Exploring firm effects in drug discovery. In: Dosi G, Nelson R, Winter S (eds) *The nature and dynamics of organizational capabilities*. Oxford University Press, Oxford, pp 155–182
- Highsmith J (2004) *Agile project management: creating innovative products*. Addison-Wesley, Boston
- Hill RC, Hellriegel D (1994) Critical contingencies in joint venture management: some lessons from managers. *Org Sci* 5(4):594–607
- Hill T, Portiolo-Staudacher A (2003) Trade-off scenarios within the context of a manufacturing strategy. In: Spina G (ed) *One world? One view of POM? The challenges of integrating research and practice*. SG Editoriali, Cernobbio, pp 129–138
- Hitt MA, Dacin MT, Levitas E, Arregle J, Borza A (2000) Partner selection in emerging and developed market contexts: resource-based and organizational learning perspectives. *Acad Manage J* 43(3):449–467
- Hitt MA, Bierman L, Shimizu K, Kochhar R (2001) Direct and moderating effects of human capital on strategy and performance in professional service firms: a resource-based perspective. *Acad Manage J* 44(1):13–28
- Hitt MA, Ahlstrom D, Dacin MT, Levitas E, Svobodina L (2004) The institutional effects on strategic alliance partner selection in transition economies: China vs. Russia. *Org Sci* 15(2):173–185
- Ho DY (1976) On the concept of face. *Am J Soc* 81(4):867–884
- Hoeffler S, Keller KL (2003) The marketing advantages of strong brand reputation. *J Brand Manage* 10(6):421–445
- Hofer CW, Schendel D (1978) *Strategy formulation: analytical concepts*. West, St. Paul
- Hoffman NP (2000) An examination of the ‘sustainable competitive advantage’ concept: past, present, and future. *Academy of Marketing Science*. Retrieved 5 Jan 2009, from <http://pdfcast.org/pdf/an-examination-of-the-sustainable-competitive-advantage-concept-past-present-and-future>
- Hofstede G (1993) Cultural constraints in management theories. *Acad Manage Exec* 7(1):81–94
- Hofstede G (1999) Problems remain, but theories will change. The universal and the specific in 21st century global management. *Org Dyn* 28(1):34–44

- Holt DB (2004) How brand reputation become icons: the principles of cultural branding. Harvard Business School Press, Boston
- Homburg C, Pflesser C (2000) A multiple-layer model of market-oriented organizational culture: measurement issues and performance outcomes. [Article]. *J Mark Res* 37(4):449–462
- Hooley G, Greenley G (2007) The resource underpinnings of competitive positions. *J Strateg Mark* 13(2):93–116
- Hooley G, Broderick A, Moller K (1998) Competitive positioning and the resource-based view of the firm. *J Strateg Mark* 6:97–115
- Hormozi AH (2001) Agile manufacturing: the next logical step. *Benchmarking Int J* 8(2):132–143
- Hoskisson RE, Busenitz LW (2001) Market uncertainty and learning distance in corporate entrepreneurship entry mode choice. In: Hitt MA, Ireland RD, Camp SM, Sexton DL (eds) *Strategic entrepreneurship: creating a new integrated mindset*. Blackwell Publishers, Oxford
- Hoskisson RE, Eden L, Lau CM, Wright M (2000) Strategy in emerging economies. *Acad Manage J* 43(2):249–267
- Hosmer L (1995) Trust: the connecting link between organisational theory and philosophical ethics. *Acad Manage Rev* 20(4):379–403
- Houston MB (2003) Alliance partner reputation as a signal to the market: evidence from bank loan alliances. *Corp Reput Rev* 5(4):330–342
- Hsieh MH, Tsai KH (2007) Technological capability, social capital and the launch strategy for innovative products. *Ind Mark Manage* 36(4):493–502
- Huber GP (1991) Organizational learning: the contributing processes and the literatures. *Org Sci* 2(1):88–115
- Hult GTM, Hurley RF, Knight GA (2004) Innovativeness: its antecedents and impact on business performance. *Ind Mark Manage* 33(5):429–438
- Hult GTM, Ketchen DJ Jr, Slater SF (2005) Market orientation and performance: an integration of disparate approaches. *Strateg Manage J* 26(12):1173–1181
- Hunt SD (1997) Competing through relationships: grounding relationship marketing in resource-advantage theory. *J Mark Manage* 13(5):431–445
- Hunt SD (2000) The competence-based, resource-advantage, and neoclassical theories of competition: toward a synthesis. In: Sanchez R, Heene A (eds) *Theory development for competence-based management advances in applied business strategy*. JAI Press, Greenwich
- Hunt SD (2004) On the service-centered dominant logic of marketing. *J Mark* 68(1):21–22
- Hunt SD, Morgan RM (1995) The competitive advantage theory of competition. *J Mark* 59(2):1–14
- Hunt SD, Arnett DB, Madhavaram S (2006) The explanatory foundations of relationship marketing theory. *J Bus Ind Mark* 21(2):72–87
- Hurley RF, Hult GTM (1998) Innovation, market orientation, and organizational learning: an integration and empirical examination. *J Mark* 62(Special Issue):42–54
- Inkpen A (1996) Creating knowledge through collaboration. *Calif Manage Rev* 39(1):123–140
- Inkpen A, Tsang EWK (2005) Social capital, networks, and knowledge transfer. *Acad Manage Rev* 30(1):146–165
- Ireland RD, Hitt MA, Vaidyanath D (2002) Alliance management as a source of competitive advantage. *J Manage* 28(3):413–446
- Jacobs JB (1979) A preliminary model of particularistic ties in Chinese political alliances: Kanching and Kuan-hsi in a rural Taiwanese township. *China Q* 78:237–273
- Jain NK, Jain VK (2001) Computer aided process planning form agile manufacturing environment. In: Gunasekaran A (ed) *Agile manufacturing: the 21st century competitive strategy*. Elsevier, Oxford, pp 515–534
- Jap SD (1999) Pie-expansion efforts: collaboration processes in buyer-supplier relationships. *J Mark Res* 36:461–475
- Jap SD, Anderson EW (2003) Safeguarding interorganizational performance and continuity under ex post opportunism. *Manage Sci* 49(12):1684–1701
- Jaworski B, Kohli A (1996) Market orientation: review, refinement and roadmap. *J Mark Focus Manage* 1(2):119–135
- Jerez-Gomez P, Cespedes-Lorente J, Valle-Cabrera R (2005) Organizational learning capability: a proposal for measurement. *J Bus Res* 58(6):715–725

- Johnson DR, Hoopes DG (2003) Managerial cognition, sunk costs, and the evolution of industry structure. *Strateg Manage J Spec Issue* 24(10):1057–1068
- Johnson JL, Sohi RS (2003) The development of interfirm partnering competence: platforms for learning, learning activities, and consequences of learning. *J Bus Res* 56(9):757–766
- Johnson JL, Cullen JB, Sakano T, Takenouchi H (1996) Setting the stage for trust and strategic integration in Japanese-U.S. cooperative alliances. *J Int Bus Stud* 27(5):981–1004
- Jones E, Chonko LB, Roberts JA (2003) Creating a partnership-oriented knowledge creation culture in strategic sales alliances: a conceptual framework. *J Bus Ind Mark* 18(4/5):336–352
- Jonker M, Romijn H, Szirmai A (2006) Technological effort, technological capabilities and economic performance: a case study of the paper manufacturing sector in west java. *Technovation* 26(1):121–134
- Kale P, Singh H, Perlmutter H (2000) Learning and protection of proprietary assets in strategic alliances-building relational capital. *Strateg Manage J* 21(3):217–237
- Kale P, Dyer JH, Singh H (2001) Value creation and success in strategic alliances: alliancing skills and the role of alliance structure and systems. *Eur Manage J* 19(5):463–471
- Kale P, Dyer JH, Singh H (2002) Alliance capability, stock market response, and long-term alliance success: the role of the alliance function. *Strateg Manage J* 23(8):747–767
- Kaleka A (2002) Resources and capabilities driving competitive advantage in export markets: guidelines for industrial exporters. *Ind Mark Manage* 31(3):273–283
- Kaplan RS, Norton DP (1992) The balanced scorecard—measures that drive performance. *Harv Bus Rev* 70(1):71–79
- Kaplan RS, Norton DP (1996) Using the balanced scorecard as a strategic management system. *Harv Bus Rev* 74(1):75–85
- Katkalo VS, Pitelis CN, Teece DJ (2010) Introduction: on the nature and scope of dynamic capabilities. [Article]. *Ind Corp Change* 19(4):1175–1186
- Katsikeas CS, Piercy NF, Ioannidis C (1996) Determinants of export performance in a European context. *Eur J Mark* 30(6):6–35
- Kay M (2006) Strong brand reputation and corporate brand reputation. *Eur J Mark* 40(7):742–760
- Keegan DP, Eiler RG, Jones CR (1989) Are your performance measures obsolete? *Manag Acc* 70(12):45–50
- Keil T (2004) Building external corporate venturing capability. *J Manage Stud* 41(5):799–825
- Ketchen DJ Jr, Hult GTM, Slater SF (2007) Toward greater understanding of market orientation and the resource-based view. *Strateg Manage J* 28(9):961–964
- Khanna T, Gulati R, Nohria N (1998) The dynamics of learning alliances: competition, cooperation, and relative scope. *Strateg Manage J* 19(3):193–210
- Kidd PT (1994) *Agile manufacturing: forging new frontiers*. Addison-Wesley, Reading
- Kim L (1997) *Imitation to innovation: the dynamics of Korea's technological learning*. Harvard Business School Press, Boston
- Kim WC, Mauborgne R (1998) Procedural justice, strategic decision making, and the knowledge economy. *Strateg Manage J* 19(4):323–338
- Kim C, Song J (2007) Creating new technology through alliances: an empirical investigation of joint patents. [Article]. *Technovation* 27(8):461–470
- Kirca AH, Jayachandran S, Bearden WO (2005) Market orientation: a meta-analytic review and assessment of its antecedents and impact on performance. *J Mark* 69:24–41
- Kogut B (1988) Joint ventures: theoretical and empirical perspectives. *Strateg Manage J* 9(4):319–332
- Kogut B, Zander U (1992) Knowledge of the firm, combinative capabilities, and the relationship of technology. *Org Sci* 3(3):383–397
- Kohli AK, Jaworski BJ (1990) Market orientation: the construct, research propositions, and managerial implications. *J Mark* 54(2):1–18
- Kor YY, Leblebici H (2005) How do interdependencies among human capital deployment, development, and diversification strategies affect firms' financial performance? *Strateg Manage J* 26(9):967–985
- Kor YY, Mahoney JT (2005) How dynamics, management, and governance of resource deployments influence firm-level performance. *Strateg Manage J* 26(5):489–496

- Kostova T, Roth K (2002) Adoption of an organizational practice by subsidiaries of multinational corporations: institutional and relational effects. *Acad Manage J* 45(2):215–233
- Kotabe M, Martin X, Domoto H (2003) Gaining from vertical partnerships: knowledge transfer, relationship duration, and supplier performance improvement in the U.S. and Japanese automotive industries. *Strateg Manage J* 24(2):293–316
- Kotler P (2003) *Marketing insights from A to Z*. Wiley, Hoboken
- Kraaijenbrink J, Spender JC, Groen AJ (2010) The resource-based view: a review and assessment of its critiques. *J Manage* 36(1):349–372
- Krajewski LJ, Ritzman LP (1996) *Operations management: strategy and analysis*, 4th edn. Addison-Wesley, Reading
- Krasnikov A, Jayachandran S (2008) The relative impact of marketing, research-and-development, and operations capabilities on firm performance. *J Mark* 72:1–11
- Kropp F, Lindsay NJ, Shoham A (2006) Entrepreneurial, market, and learning orientations and international entrepreneurial-business venture performance in South African firms. *Int Mark Rev* 23(5):504–523
- Kumar A, Motwani J (1995) A methodology for assessing time-based competitive advantage of manufacturing firms. *Int J Oper Prod Manage* 15(2):36–53
- Kumar BN, Nti KO (1998) Differential learning and interaction in alliance dynamics: a process and outcome discrepancy model. *Org Sci* 9(3):356–367
- Lafferty BA, Hult GTM (2001) A synthesis of contemporary market orientation perspectives. [Article]. *Eur J Mark* 35(1/2):92–109
- Lambe CJ, Spekman RE, Hunt SD (2002) Alliance competence, resources, and alliance success: conceptualization, measurement, and initial test. *Acad Mark Sci* 30(2):141–158
- Lamberti L, Noci G (2010) Marketing strategy and marketing performance measurement system: exploring the relationship. *Eur Manage J* 28(2):139–152
- Lane HW, Beamish PW (1990) Cross-cultural cooperative behavior in joint ventures in LDCs. *Manage Int Rev* 30(Special issue):87–101
- Lane P, Lubatkin M (1998) Relative absorptive capacity and interorganizational learning. *Strateg Manage J* 19(5):461–477
- Lane P, Koka B, Pathak S (2006) The reification of absorptive capacity: a critical review and rejuvenation of the construct. *Acad Manage Rev* 31(4):833–863
- Langerak F (2003) The effect of market orientation on positional advantage and organizational performance. *J Strateg Mark* 11:93–115
- Lau CM, Tse DK, Zhou N (2002) Institutional forces and organizational culture in China: effects on changes schemas, firm commitment and job satisfaction. *J Int Bus Stud* 33(3):533–550
- Lavie D (2006) Capability reconfiguration: an analysis of incumbent responses to technological change. *Acad Manage Rev* 31(1):153–174
- Lawrence P, Lorsch J (1967) Differentiation and integration in complex organizations. *Adm Sci Q* 12(1):1–30
- Le Meunier-FitzHugh K, Lane N (2009) Collaboration between sales and marketing, market orientation and business performance in business-to-business organizations. *J Strateg Mark* 17(3):291–306
- Lebar E, Buehler P, Keller KL, Sawicka M, Aksehirli Z, Richey K (2005) Brand equity implications of joint branding programs. *J Adv Res* 45(4):413–425
- Lee C, Lee K, Pennings JM (2001a) Internal capabilities, external networks, and performance: a study on technology-based ventures. *Strateg Manage J* 22(6/7):615–640
- Lee D, Pae JH, Wong YH (2001b) A model of close business relationships in China (*guanxi*). *Eur J Mark* 35(1/2):51–69
- Lee J, Lee K, Rho S (2002) An evolutionary perspective on strategic group emergence: a genetic algorithm-based model. *Strateg Manage J* 23(7):727–746
- Lee Y, Lee C, Lee S, Babin BJ (2008) Festivalscapes and patron's emotions, satisfaction and loyalty. *J Bus Res* 61(1):56–64
- Leitch S, Richardson N (2003) Corporate branding in the new economy. *Eur J Mark* 37(7/8):1065–1079
- Leonard-Barton DA (1992) Core capabilities and core rigidities: a paradox in managing new product development. *Strateg Manage J* 13(2):111–125

- Leuthesser L, Kohli C, Suri R (2003) Academic papers 2 +2 =5? A framework focusing co-branding to leverage a brand. [Article]. *J Brand Manage* 11(1):35
- Levinthal DA, March JG (1993) The myopia of learning. *Strateg Manage J* 14(1):95–112
- Levinthal DA, Myatt J (1994) Co-evolution of capabilities and industry—the evolution of mutual fund processing. *Strateg Manage J* 15:45–62
- Levinthal DA, Ocasio WC (2007) Dynamic capabilities and adaptation. Retrieved from <http://www.druid.dk/streaming/ds2007/onsdag/msh.htm>
- Li LX (2000) Manufacturing capability development in a changing business environment. *Ind Manage Data Syst* 100(6):261–270
- Li H, Atuahene-Gima K (2002) The adoption of agency business activity, product innovation, and performance in Chinese technology ventures. *Strateg Manage J* 23(6):469–490
- Li T, Calantone RJ (1998) The impact of market knowledge competence on new product advantage: conceptualization and empirical examination. *J Mark* 62(1):13–29
- Li P, Tang G (2009) Performance measurement design within its organisational context—evidence from China. *Manage Account Res* 20(3):193–207
- Li H, Zhang Y (2007) The role of managers' political networking and functional experience in new venture performance: evidence from China's transition economy. *Strateg Manage J* 28(8):791–804
- Li JJ, Poppo L, Zhou KZ (2008) Do managerial ties in China always produce value? Competition, uncertainty, and domestic vs. foreign firms. *Strateg Manage J* 29(4):383–400
- Li JJ, Zhou KZ, Shao AT (2009) Competitive position, managerial ties, and profitability of foreign firms in China: an interactive perspective. *J Int Bus Stud* 40(2):339–352
- Lin H (2006) Interorganizational collaboration, social embeddedness, and value creation: a theoretical analysis. *Int J Manage* 23(3):548–558
- Lippman SA, Rumelt R (1982) Uncertain imitability: an analysis of interfirm differences in efficiency under competition. *Bell J Econ* 13(2):418–438
- Lippman SA, Rumelt RP (2003) A bargaining perspective on resource advantage. *Strateg Manage J* 24(11):1069–1086
- Liu Y, Su C, Li Y, Liu T (2009) Managing opportunism in a developing interfirm relationship: the interrelationship of calculative and loyalty commitment. *Ind Mark Manage* 39(5):844–852. doi:10.1016/j.indmarman.2009.09.004
- Lockett A, Thompson S, Morgenstern U (2009) The development of the resource-based view of the firm: a critical appraisal. *Int J Manage Rev* 11(1):9–28
- Lorenzoni G, Lipparini A (1999) The leveraging of inter-firm relationships as a distinct organization capability: a longitudinal study. *Strateg Manage J* 20(4):317–338
- Lovett S, Simmons LC, Kali R (1999) Guanxi versus the market: ethics and efficiency. *J Int Bus Stud* 30(2):231–248
- Low J, Kalafut PC (2002) Managing intangibles. [Article]. *Exec Excell* 19(8):6–20
- Low G, Lamb C (2000) The measurement and dimensionality of brand associations. *J Prod Brand Manage* 9(6):350–368
- Luk C, Yau O, Sin L, Tse A, Chow R, Lee J (2008) The effects of social capital and organizational innovativeness in different institutional contexts. *J Int Bus Stud* 39(4):589–612
- Lukas BA, Bell SJ (2000) Strategic market position and R&D capability in global manufacturing industries. *Ind Mark Manage* 29:565–574
- Luo Y (1997) Guanxi: principles, philosophies and implications. *Hum Syst Manage* 16(1):43–52
- Luo Y (2000a) Guanxi and business. World Scientific Publishing Co., River Edge
- Luo Y (2000b) Partnering with Chinese firms: lessons for international managers. Ashgate, Aldershot
- Luo Y (2001) Antecedents and consequences of personal attachment in cross-cultural cooperative ventures. *Adm Sci Q* 46(2):177–201
- Luo Y (2003) Industrial dynamics and managerial networking in an emerging market: the case of China. *Strateg Manage J* 24(13):1315–1327
- Luo X, Hassan M (2009) The role of top management networks for market knowledge creation and sharing in China. *J Bus Res* 62(10):1020–1026
- Luo Y, Peng MW (1999) Learning to compete in a transition economy: experience, environment, and performance. *J Int Bus Stud* 30(2):269–296

- Luo X, Griffith DA, Liu SS, Shi Y (2004) The effects of customer relationships and social capital on firm performance: a Chinese business illustration. *J Int Mark* 12(4):25–45
- Lusch RF, Vargo SL (2006) Service dominant logic: reactions, reflections and refinements. *Mark Theory* 6(3):281–288
- Lyles MA, Baird IS (1994) Performance of international joint-ventures in two Eastern European countries: the case of Hungary and Poland. *Manage Int Rev* 34(3):313–329
- Ma X, Yao X, Xi Y (2009) How do interorganizational and interpersonal networks affect a firm's strategic adaptive capability in a transition economy? *J Bus Res* 62(11):1087–1095
- Macpherson A, Jones O, Zhang M (2004) Evolution or revolution? Dynamic capabilities in a knowledge-dependent firm. *R&D Manage* 34(2):161–177
- Madhavaram S, Hunt SD (2008) The service-dominant logic and a hierarchy of operant resources: developing masterful operant resources and implications for marketing strategy. *J Acad Mark Sci* 36(1):67–82
- Madhok A (1995) Revisiting multinational firms' tolerance for joint ventures: a trust-based approach. *J Int Bus Stud* 26(1):117–137
- Madhok A, Tallman SB (1998) Resources, transactions and rents: managing value through inter-firm collaborative relationships. *Org Sci* 9(3):326–339
- Mahoney JT (1995) The management of resources and the resource of management. *J Bus Res* 33(1):91–101
- Makadok R (2001) Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strateg Manage J* 22(5):387–401
- March JG (1991) Exploration and exploitation in organisational learning. *Org Sci* 2(1):71–87
- Markman GD, Gartner WB (2002) Is extraordinary growth profitable? A study of Inc. 500 high-growth companies. *Entrepr Theory Pract* 27(1):65–76
- Marr B, Schiuma G (2003) Business performance measurement—past, present and future. *Manage Decis* 41(8):680–687
- Marshall GW, Goebel DJ, Moncrief WC (2003) Hiring for success at the buyer–seller interface. *J Bus Res* 56(4):247–256
- Mavondo FT (1999) Market orientation: scale invariance and relationship to generic strategies across two countries. *J Mark Focus Manage* 4(1):125–142
- Mavondo FT (2000) Marketing as adaptation: example from a developing economy. *Mark Int Plan* 18(5):256–272
- Mavondo FT, Farrell M (2000) Measuring market orientation: are there differences between business marketers and consumer marketers? *Aust J Manage* 25(2):223–244
- Mavondo FT, Rodrigo EM (2001) The effect of relationship dimensions on interpersonal and inter-organizational commitment in organizations conducting business between Australia and China. *J Bus Res* 52(1):111–121
- Mavondo FT, Chimhanzi J, Stewart J (2005) Learning orientation and market orientation-relationship with innovation, human resource practices and performance. *Eur J Mark* 39(11/12): 1235–1263
- McGaughey RE (1999) Internet technology: contributing to agility in the twenty-first century. *Int J Agile Manage Syst* 1(1):7–13
- McGrath RG (2001) Exploratory learning, adaptive capacity and the role of managerial oversight. *Acad Manage J* 44(1):118–131
- McGrath RG, Nerkar A (2004) Real options reasoning and a new look at the R&D investment strategies of pharmaceutical firms. *Strateg Manage J* 29(1):1–21
- Meredith S, Francis D (2000) Journey towards agility: the agile wheel explored. *TQM Mag* 12(2):137–143
- Meyer M (2002) Rethinking performance measurement: beyond the balanced scorecard. Cambridge University Press, Cambridge
- Meyer M, Gupta V (1994) The performance paradox. *Res Org Behav* 16:307–367
- Michalisin MD, Karau SJ, Tangpong C (2004) Top management team cohesion and superior industry returns. *Group Org Manage* 29(1):125–140
- Michalisin MD, Karau SJ, Tangpong C (2007) Leadership's activation of team cohesion as a strategic asset: an empirical simulation. *J Bus Strateg* 24(1):1–26

- Miller D (1996) A preliminary typology of organizational learning: synthesizing the literature. *J Manage* 22(3):485–505
- Mishina Y, Pollock TG, Porac JF (2004) Are more resources always better for growth? Resource stickiness in market and product expansion. *Strateg Manage J* 25(12):1179–1197
- Mitchell VL (2006) Knowledge integration and information technology project performance. *MIS Q* 30(4):919–939
- Mohr J, Spekman RE (1994) Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution technique. *Strateg Manage J* 15(2):135–152
- Mohr J, Fisher J, Nevin JR (1996) Collaborative communication in interfirm relationships: moderating effects of integration and control. *J Mark* 60(2):103–115
- Montgomery JC, Levine LO (1996) The transition to agile manufacturing—staying flexible for competitive advantage. ASQC, Milwaukee
- Moore M, Fairhurst A (2003) Marketing capabilities and firm performance in fashion retailing. *J Fash Mark Manage* 7(4):386–397
- Moorman C, Rust RT (1999) The role of marketing. *J Mark* 63(4):180–197
- Moorman C, Slotegraaf RJ (1999) The contingency value of complementary capabilities in product development. *J Mark Res* 36:239–257
- Morgan RM, Hunt SD (1994) The commitment-trust theory of relationship marketing. *J Mark* 58(3):20–38
- Morgan RM, Hunt SD (1999) Relationship-based competitive advantage: the role of relationship marketing in marketing strategy. *J Bus Res* 46(3):281–290
- Morgan RE, McGuinness T, Thorpe ER (2000) The contribution of marketing to business strategy formation: a perspective on business performance gains. *J Strateg Mark* 8(4):341–362
- Morgan NA, Zou S, Vorhies DW, Katsikeas CS (2003) Experiential and informational knowledge, architectural marketing capabilities, and the adaptive performance of export ventures: a cross-national study. *Decis Sci* 34(2):287–321
- Morgan NA, Vorhies DW, Mason CH (2009) Market orientation, marketing capabilities, and firm performance. *Strateg Manage J* 30:909–920
- Morris SS, Snell SA, Wright PM (2005) A resource-based view of international human resources: toward a framework of integrative and creative capabilities. Center for Advanced Human Resource Studies, Cornell University, New York
- Mosakowski E, McKelvey B (1997) Predicting rent generation in competence-based competition. In: Heene A, Sanchez R (eds) *Competence-based strategic management*. Wiley, Chichester, pp 65–85
- Mowery DC, Oxley JE, Silverman BS (1996) Strategic alliances and interfirm knowledge transfer. *Strateg Manage J* 17(Special issue):77–91
- Mursitama TN (2006) Creating relational rents: the effect of business groups on affiliated firms' performance in Indonesia. *Asia Pac J Manage* 23(4):537–557
- Narasimhan R, Swink M, Kim SW (2006) Disentangling leanness and agility: an empirical investigation. *J Oper Manage* 24(5):440–457
- Narver JC, Slater SF (1990) The effect of a market orientation on business profitability. *J Mark* 54:20–35
- Narver JC, Slater SF, MacLachlan DL (2004) Responsive and proactive market orientation and new-product success. *J Prod Innov Manage* 21(5):477–501
- Nasution HN, Mavondo FT (2008) Organisational capabilities: antecedents and implications for customer value. *Eur J Mark* 42(3/4):477–501
- Nee V (1992) Organizational dynamics of market transition: hybrid forms, property rights, and mixed economy in China. *Adm Sci Q* 37(1):1–27
- Neely A, Gregory M, Platts K (1995) Performance measurement system design. *Int J Oper Prod Manage* 15(4):80–116
- Nelson RR, Winter SG (1982) *An evolutionary theory of economic change*. Belknap Press, Cambridge, MA
- Nerkar A, Paruchuri S (2005) Evolution of R&D capabilities: the role of knowledge networks within a firm. *Manage Sci* 51(5):771–785

- Newbert SL (2007) Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strateg Manage J* 28(1):121–146
- Newey LR, Zahra SA (2009) The evolving firm: how dynamic and operating capabilities interact to enable entrepreneurship. *Br J Manage* 20:S81–S100
- Noble C, Mokwa M (1999) Implementing marketing strategies: developing and testing a managerial theory. *J Mark* 63(4):57–73
- Nohria N, Gulati R (1996) Is slack good or bad for innovation? *Acad Manage J* 39(5):1245–1264
- Nooteboom B (1996) Trust, opportunism and governance: a process and control model. *Org Stud* 17(6):985–1010
- North DC (2005) Understanding the process of economic change. Princeton University Press, Princeton
- O'Connor NG, Chow CW, Wu A (2004) The adoption of 'western' management accounting/controls in China's state-owned enterprises during economic transition. *Account Org Soc* 29(3):349–375
- O'Connor NG, Deng J, Luo Y (2006) Political constraints, organization design and performance measurement in China's state-owned enterprises. *Account Org Soc* 31(2):157–177
- O'Reilly CA, Tushman ML (2007) Ambidexterity as a dynamic capability: resolving the innovator's dilemma. Stanford University Graduate School of Business research paper no. 1963, p 61. Retrieved from <http://ssrn.com/abstract=978493>
- O'Sullivan D, Abela AV (2007) Marketing performance measurement ability and firm performance. *J Mark* 71(2):79–93
- Obloj T, Obloj K (2006) Diminishing returns from reputation: do followers have a competitive advantage? *Corp Reput Rev* 9(4):213–224
- OECD (2008) 18
- Oktemgil M, Greenley G (1997) Consequences of high and low adaptive capability in IK companies. *Eur J Mark* 31(7):445–466
- Olalla MF (1999) The resource-based theory and human resources. *Int Adv Econ Res* 5(1):84–93
- Olavarrieta S, Friedmann R (1999) Market-oriented culture, knowledge-related resources, reputational assets and superior performance: a conceptual framework. *J Strateg Mark* 7(2):215–228
- Olins W (1990) The corporate search for identity. *Harv Bus Rev* 68(5):153–157
- Oliver C (1990) Determinants of interorganizational relationships: integration and future directions. *Acad Manage Rev* 15(2):241–265
- Olk P (2002) Evaluating strategic alliance performance. In: Contractor F, Lorange P (eds) *Cooperative strategies and alliances*. Elsevier Press, London, pp 119–143
- Olk P (2006) Modelling and measuring the performance of alliances. In: Shenkar O, Reuer JJ (eds) *Handbook of strategic alliances*. Sage, London, pp 397–412
- Osland G (1990) Doing business in China: a framework for cross-cultural understanding. *Mark Int Plan* 8(4):1–14
- Pablo A, Reay T, Dewald JR, Sasebeer AL (2007) Identifying, enabling and managing dynamic capabilities in the public sector. *J Manage Stud* 44(5):687–708
- Palmatier RW, Dant RP, Grewal D, Evans KR (2006) Factors influencing the effectiveness of relationship marketing. *J Mark* 70(4):136–153
- Palmatier RW, Dant RP, Grewal D (2007) A comparative longitudinal analysis of theoretical perspectives of interorganizational relationship performance. *J Mark* 71(4):172–194
- Parise S, Casher A (2003) Alliance portfolios: designing and managing your network of business-partner relationships. *Acad Manage Exec* 17(4):25–39
- Park SH, Luo Y (2001) Guanxi and organizational dynamics: organizational networking in Chinese firms. *Strateg Manage J* 22(5):455–477
- Park CS, Srinivasan V (1994) A survey-based method for measuring and understanding brand equity and its extensibility. *J Mark Res* 31(3):271–288
- Park SH, Chen R, Gallagher S (2002) Firm resources as moderators of the relationship between market growth and strategic alliances in semiconductor start-ups. *Acad Manage J* 45(3):527–545
- Park SH, Jun SY, Shocker AD (1996) Composite branding alliances: an investigation of extension and feedback effects. *J Mark Res* 33(4):453–466
- Parkhe A (1991) Interfirm diversity, organizational learning and longevity in global strategic alliances. *J Int Bus Stud* 22(4):579–601

- Pekár P, Margulis MS (2003) Equity alliances take centre stage. [Article]. *Bus Strateg Rev* 14(2):50–62
- Peng MW (2003) Institutional transitions and strategic choices. *Acad Manage Rev* 28(3):275–296
- Peng MW, Heath PS (1996) The growth of the firm in planned economies in transition: institutions, organizations and strategic choice. *Acad Manage Rev* 21:492–528
- Peng MW, Luo Y (2000) Managerial ties and firm performance in a transition economy: the nature of a micro-macro link. *Acad Manage J* 43(2):486–501
- Peng MW, Quan MJ (2009) A micro-macro link during institutional transitions. *Work and Organizations in China*, from [http://www.utdallas.edu/~mikepeng/pdf/PengQuanCHAPTER Keister0810FINAL.pdf](http://www.utdallas.edu/~mikepeng/pdf/PengQuanCHAPTER%20Keister0810FINAL.pdf)
- Penrose ET (1959) *The theory of growth of the firm*. Wiley, New York
- Peppard J, Akwei CA, Hughes P (2006) The process of creating dynamic capabilities: a grounded theory approach. Paper presented at the the practice of dynamic capabilities. The organizational and knowledge network workshop, Lancaster
- Peteraf MA (1993) The cornerstones of competitive advantage: a resource-based view. *Strateg Manage J* 14(3):179–191
- Peteraf MA, Barney JB (2003) Unraveling the resource-based tangle. *Manage Decis Econ* 24(4):309–323
- Peyrefitte J, Golden PA, Brice J Jr (2002) Vertical integration and economic performance: a managerial capability framework. *Manage Decis* 40(3):217–226
- Pisano GP (1994) Knowledge, integration, and the locus of learning: an empirical analysis of process development. *Strateg Manage J* 15(1):85–100
- Pitelis CN, Teece DJ (2009) The (new) nature and essence of the firm. *Eur Manage Rev* 6(1):5–15
- Pitelis CN, Teece DJ (2010) Cross-border market co-creation, dynamic capabilities and the entrepreneurial theory of the multinational enterprise. *Ind Corp Change* 19(4):1247–1270
- Plank RE, Newell SJ (2007) The effect of social conflict on relationship loyalty in business markets. *Ind Mark Manage* 36(1):59–67
- Podolny JM, Phillips DJ (1996) The dynamics of organizational status. [Article]. *Ind Corp Change* 5(2):453–471
- Porter ME (1979) How competitive forces shape strategy. *Harv Bus Rev* 57(2):137–145
- Porter ME (1980) *Competitive strategy: techniques for analysing industries and competitors*. Free Press, New York
- Porter ME (1985) The value chain and competitive advantage. In: *Competitive advantage: creating and sustaining superior performance*. Free Press, New York
- Porter ME (1990) *The competitive advantage of nations*. Free Press, New York
- Powell TC (1992) Organizational alignment as competitive advantage. [Article]. *Strateg Manage J* 13(2):119–134
- Powell WW, Koput KW, Smith-Doerr L (1996) Interorganizational collaboration and the locus of innovation. *Adm Sci Q* 41(1):116–145
- Prahalad CK, Hamel G (1990) The core competence of the corporation. *Harv Bus Rev* 68(3):79–91
- Priem RL, Butler JE (2001a) Is the resource-based “view” a useful perspective for strategic management research? *Acad Manage Exec* 26(1):22–40
- Priem RL, Butler JE (2001b) Tautology in the resource-based view and the implications of externally determined resource value: further comments. *Acad Manage Rev* 26(1):57–66
- Prieto IM, Revilla E (2006a) Assessing the impact of learning capability on business performance: empirical evidence from Spain. *Manage Learn* 37(4):499–522
- Prieto IM, Revilla E (2006b) Learning capability and business performance: a non-financial and financial assessment. *Learn Org* 13(2):166–185
- Pringle CD, Kroll MJ (1997) Why Trafalgar was won before it was fought: lessons from resource-based theory. *Acad Manage Exec* 11(4):73–89
- Provan KG, Fish A, Sydow J (2007) Interorganizational networks at the network level: a review of the empirical literature on whole networks. *J Manage* 33(3):479–516
- Puffer SM, Weintrop JB (1991) Corporate performance and CEO turnover: the role of performance expectations. *Adm Sci Q* 36(1):1–19

- Raggio RD, Leone RP (2007) The theoretical separation of brand equity and brand value: managerial implications for strategic planning. *J Brand Manage* 14(5):380–395
- Rahim MA (1997) Styles of managing organizational conflict: a critical review and synthesis of theory and research. In: Rahim MA, Golembiewski RT, Pate LE (eds) *Current topics in management*. JAI Press, Greenwich, pp 61–77
- Rauyruen P, Miller KE (2007) Relationship quality as a predictor of B2B customer loyalty. *J Bus Res* 60:21–31
- Ray G, Barney JB, Muhanna WA (2004) Capabilities, business processes, and competitive advantage: choosing the dependent variable in empirical tests of the resource-based view. *Strateg Manage J* 25(1):23–37
- Reed K, Blunsdon B (1998) Organizational flexibility in Australia. *Int J Hum Res Manage* 9(3):457–477
- Reed R, De Fillippi RJ (1990) Causal ambiguity, barriers to imitation, and sustainable competitive advantage. *Acad Manage Rev* 15(1):88–102
- Ren J, Yusuf YY, Burns ND (2000) A prototype of measurement system for agile enterprise. Paper presented at the international conference on quality, reliability, and maintenance, Oxford, UK
- Ren J, Yusuf YY, Burns ND (2003) The effects of agile attributes on competitive priorities: a neural network approach. *Integr Manuf Syst* 14(6):489–497
- Rigby CM, Day P, Forrester JB (2000) Agile supply: rethinking systems thinking. *Int J Agile Manage Syst* 2(7):534–548
- Rindova VP (1997) The image cascade and the dynamics of corporate reputations. *Corp Reput Rev* 1(2):188–194
- Rindova VP, Fombrun CJ (1999) Constructing competitive advantage: the role of firm-constituent interactions. *Strateg Manage J* 20(8):691–710
- Rindova VP, Kotha S (2001) Continuous ‘morphing’: competing through dynamic capabilities, form, and function. *Acad Manage J* 44(10):1263–1278
- Rindova VP, Taylor SR (2002) Dynamic capabilities as macro and micro organizational evolution. Retrieved 3 May 2009 from www.rhsmith.umd.edu/hcit/docs/dynamic.pdf
- Ring PS, Van de Ven AH (1992) Structuring cooperative relationships between organizations. *Strateg Manage J* 13(7):483–498
- Ring PS, Van de Ven AH (1994) Developmental processes of cooperative interorganizational relationships. *Acad Manage J* 19(1):90–118
- Ritter T, Gemünden HG (2003) Network competence: its impact on innovation success and its antecedents. *J Bus Res* 56(9):745–755
- Ritter T, Gemünden HG (2004) The impact of a company’s business strategy on its technological competence, network competence and innovation success. *J Bus Res* 57(5):548–556
- Ritter T, Wilkinson IF, Johnson WJ (2002) Measuring network competence: some international evidence. *J Bus Ind Mark* 17(2/3):119–138
- Roberts PW, Dowling GR (2000) Reputation and sustained superior financial performance. *Acad Manag Proc* 8(1):1–7
- Roberts PW, Dowling GR (2002) Corporate reputation and sustained superior financial performance. *Strateg Manage J* 23(12):1077–1093
- Rodriguez Cano C, Carrillat FA, Jaramillo F (2004) A meta-analysis of the relationship between market orientation and business performance: evidence from five continents. *Int J Res Mark* 21(2):179–200
- Rokkan AI, Haugland SA (2002) Developing relational exchange: effectiveness and power. *Eur J Mark* 36(1/2):211–230
- Rokkan AI, Heide JB, Wathne K (2003) Specific investments in marketing relationships: expropriation and bonding effects. *J Mark Res* 40(2):210–224
- Romme G, Zollo M, Berends P (2010) Dynamic capabilities, deliberate learning and environmental dynamism: a simulation model. *Ind Corp Change* 19(4):1271–1299
- Rosenbloom RS (2000) Leadership, capabilities, and technological change: the transformation of NCR in the electronic era. *Strateg Manage J* 21(10/11):1083–1103
- Rosenzweig ED, Aleda VR (2004) Towards a theory of competition progression: evidence from high-tech manufacturing. *Prod Oper Manage* 13(4):354–368

- Rothaermel FT, Deeds DL (2006) Alliance type, alliance experience and alliance management capability in high-technology ventures. *J Bus Ventur* 21(4):429–460
- Roy P, Roy P (2004) The Hewlett Packard—Compaq computers merger: insight from the resource-based view and the dynamic capabilities perspective. *J Am Acad Bus Camb* 5(1/2):7–14
- Ruekert RW, Walker OC Jr (1987) Marketing's interaction with other functional units: a conceptual framework and empirical evidence. *J Mark* 51(1):1–19
- Rumelt R (1984) *Toward a strategic theory of the firm*. Prentice-Hall, Englewood Cliffs
- Rumelt R (1991) How much does industry matter? *Strateg Manag J* 12(3):167–185
- Saa-Perez PD, Garcia-Falcon JM (2002) A resource-based view of human resource management and organizational capabilities development. *Int J Hum Res Manage* 13(1):123–140
- Sarkar M, Echambadi R, Cavusgil ST, Aulakh PS (2001) The influence of complementarity, compatibility, and relationship capital on alliance performance. *Acad Mark Sci* 29(4):358–373
- Sarmiento R, Sarkis J, Byrne M (2010) Manufacturing capabilities and performance: a critical analysis and review. *Int J Prod Res* 48(5):1267–1286
- Schoemaker PJH, Amit R (1994) Investment in strategic assets: industry and firm-level perspectives. In: Shrivastava P, Huff AS, Dutton JE (eds) *Advances in strategic management: resource-based view of the firm*. JAI Press, Inc., Greenwich
- Scott WR (1992) *Organizations: relational, natural and open systems*, 3rd edn. Prentice Hall, Englewood Cliffs
- Seabright MA, Levinthal DA, Fichman M (1992) Role of individual attachments in the dissolution of interorganizational relationships. *Acad Manage J* 35(1):122–160
- Sengupta S, Perry M (1997) Some antecedents of global strategic alliance formation. *J Int Mark* 5(1):31–50
- Senker J, Faulkner W (1996) Networks, tacit knowledge and innovation. In: Coombs R (ed) *Technological collaboration: the dynamics of industrial co-operation in industrial innovation*. Edward Elgar, Cheltenham
- Shapiro C (1983) Premiums for high quality products as returns to reputations. *Q J Econ* 98(4):659–679
- Shapiro C (1989) The theory of business strategy. *RAND J Econ* 20(1):125–137
- Sharifi H, Zhang Z (1999) A methodology for achieving agility in manufacturing organisations: an introduction. *Int J Prod Econ* 62(1/2):7–22
- Sharma S, Vredenburg H (1998) Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities. *Strateg Manage J* 19(8):729–753
- Sherehiy B, Karwowski W, Layer JK (2007) A review of enterprise agility: concepts, frameworks, and attributes. *Int J Ind Ergon* 37(2):445–460
- Shetach A (2009) The four-dimensions model: a tool for effective conflict management. *Int Stud Manage Org* 39(3):82–106
- Simonin BL (1997) The importance of collaborative know-how: an empirical test of the learning organization. *Acad Manage J* 40(5):1150–1174
- Simonin BL (1999) Ambiguity and process of knowledge transfer in strategic alliances. *Strateg Manage J* 20(7):595–623
- Simonin BL (2004) An empirical investigation of the process of knowledge transfer in international strategic alliances. *J Int Bus Stud* 35(5):407–427
- Sinkula JM, Baker WE, Noordewier T (1997) A framework for market-based organizational learning: linking values, knowledge and behavior. *Acad Mark Sci* 25(4):305–318
- Sirmon DG, Hitt MA (2003) Managing resources: linking unique resources, management, and wealth creation in family firms. *Entrep Theory Pract* 27(4):339–358
- Sirmon DG, Hitt MA (2009) Contingencies within dynamic managerial capabilities: interdependent effects of resource investment and deployment on firm performance. *Strateg Manage J* 30(13):1375–1394
- Sirmon DG, Hills MJ, Ireland RD (2007) Managing firm resources in dynamic environments to create value: looking inside the black box. *Acad Manage Rev* 32(1):273–292
- Sivadas E, Dwyer FR (2000) An examination of organizational factors influencing new product success in internal and alliance-based processes. *J Mark* 64(1):31–49
- Slater SF (1996) The challenge of sustaining competitive advantage. *Ind Mark Manage* 25(1):79–86

- Slater SF, Narver JC (1995) Market orientation and the learning organization. *J Mark* 59(3):63–75
- Slater SF, Narver JC (1998) Customer-led and market-oriented: let's not confuse the two. *Strateg Manage J* 19(10):1001–1007
- Slater SF, Olson EM, Hult GTM (2006) The moderating influence of strategic orientation on the strategy formation capability–performance relationship. *Strateg Manage J* 27(12):1221–1231
- Smith JB, Barclay DW (1997) The effects of organizational differences and trust on the effectiveness of selling partner relationships. *J Mark* 61:3–21
- Snell SA, Youndt MA, Wright PM (1996) Establishing a framework for research in strategic human resource management: merging resource theory and organization learning. *Res Pers Hum Res Manage* 14(1):61–90
- Solomon MR, Surprenant C, Czepiel JA, Gutman EG (1985) A role theory perspective on dyadic interaction: the service encounter. *J Mark* 40(1):99–111
- Song M, Dyer B, Jeffrey TR (2006) Conflict management and innovation performance: an integrated contingency perspective. *J Acad Mark Sci* 34(3):341–356
- Sosik JJ, Jung D, Berson Y, Dionne SD, Jaussi KS (2005) Making all the right connection: the strategic leadership of top executives in high tech organizations. *Org Dyn* 34(1):47–61
- Sousa S, Aspinwall E (2010) Development of a performance measurement framework for SMEs. *Total Qual Manage Bus Excell* 21(5):475–501
- Srivastava RK, McLish TH, Wood RA, Capraro AJ (1997) The value of corporate reputation. Evidence from the equity markets. *Corp Reput Rev* 1(Summer/Fall):62–68
- Srivastava RK, Tasadduq SA, Fahey L (1998) Market-based assets and shareholder value: a framework for analysis. *J Mark* 62(1):2–18
- Srivastava RK, Tasadduq SA, Fahey L (1999) Marketing, business processes and shareholder value: an organizationally embedded view of marketing activities and the discipline of marketing. *J Mark* 63(1):168–179
- Standifird SS (2006) Using guanxi to establish corporate reputation in China. *Corp Reput Rev* 9(3):171–178
- Sternquist B, Huang Y, Chen Z (2010) Predicting market orientation: Chinese retailers in a transitional economy. *Int J Retail Distrib Manage* 38(5):360–378
- Storey J, Emberson C, Reade D (2005) The barriers to customer responsive supply chain management. *Int J Oper Prod Manage* 25(3):242–260
- Styles C, Hersch L (2005) Executive insights: relationship formation in international joint ventures: insights from Australian-Malaysian international joint ventures. *J Int Mark* 13(3):105–134
- Subedi D, Maheshwari S (2007) Impact of total quality management on profitability and efficiency of Baldrige award winners. *Delhi Bus Rev* 8(1):55–62
- Sunoo BP (1995) Wedding HR to strategic alliances. *Pers J* 74(5):28–36
- Svetlicic M, Rojec M (1994) Foreign direct investment and the transformation of central European economies. *Manage Int Rev* 34(4):293–312
- Swaminathan V (2006) When brand reputation join hands: examining the reciprocal effects of brand alliance strategies on partner brand equity. *Adv Consum Res* 33(1):43–45
- Szeto R, Wright PC, Cheng E (2006) Business networking in the Chinese context: its role in the formation of guanxi, social capital and ethical foundations. *Manage Res News* 29(7):425–438
- Tan J (2003) Curvilinear relationship between organizational slack and firm performance: evidence from Chinese state enterprises. *Eur Manage J* 21(6):740–749
- Tan D, Mahoney JT (2007) The dynamics of Japanese firm growth in U. S. industries: the Penrose effect. *Manage Int Rev* 47(2):259–279
- Taylor A (2005) An operations perspective on strategic alliance success factors: an exploratory study of alliance managers in the software industry. *Int J Oper Prod Manage* 25(5):469–490
- Teece DJ (1982) Towards an economic theory of the multiproduct firm. *J Econ Behav Org* 3(1):39–63
- Teece DJ (2007) Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strateg Manage J* 28(13):1319–1350
- Teece DJ, Pisano G, Shuen A (1990) Firm capabilities, resources and the concept of strategy. Mimeo/University of California at Berkeley/Haas School of Business, New York/Berkeley
- Teece DJ, Pisano G, Shuen A (1997) Dynamic capabilities and strategic management. *Strateg Manage J* 18(7):509–533

- Tellis GJ (1988) Advertising exposure, loyalty and brand purchase: a two stage model of choice. *J Mark Res* 15(2):134–144
- Thomas KW, Tymon WG Jr (1982) Necessary properties of relevant research: lessons from recent criticisms of the organizational sciences. *Acad Manage Rev* 7(3):345–352
- Thomas AS, Ramaswamy K (1996) Matching managers to strategy: further tests of the Miles and Snow typology. *Br J Manag* 7(3):247–261
- Thoumrungroje A, Tansuhaj P (2004) Globalization effects, co-marketing alliances, and performance. *J Am Acad Bus* 5(1/2):495–502
- Thuy LX, Quang T (2005) Relational capital and performance of international joint ventures in Vietnam. *Asia Pac Bus Rev* 11(3):389–410
- Tjosvold D, Sun H (2000) Social face in conflict among Chinese: effects of affronts to person and position. *Group Dyn Theory Res Pract* 4(5):259–271
- Tjosvold D, Sun H (2001) Effects of influence tactics and social contexts: an experiment on relationships in China. *Int J Confl Manage* 12(4):239–258
- Tsai W (2001) Knowledge transfer in interaorganizational networks: effects of network position and absorptive capacity on business unit innovation and performance. *Acad Manage J* 44(5):995–1004
- Tsai KH, Hsieh MH (2009) How different types of partners influence innovative product sales: does technological capacity matter? *J Bus Res* 62(12):1321–1328
- Tsai M, Shih C (2004) The impact of marketing knowledge among managers on marketing capabilities and business performance. *Int J Manage* 21(4):524–530
- Tsai KH, Chou C, Kuo JH (2008) The curvilinear relationships between responsive and proactive market orientations and new product performance: a contingent link. *Ind Mark Manage* 37:884–894
- Tsang EWK (1998) Can guanxi be a source of sustained competitive advantage for doing business in China? *Acad Manage Exec* 12(2):64–73
- Tsang EWK (2000) Transaction cost and resource-based explanations of joint ventures: a comparison and synthesis. *Org Stud* 21(1):215–242
- Urde M (1999) Brand orientation: a mindset of building brand reputation into strategic resources. *J Mark Manage* 15(2):117–133
- Van Hoek RI, Harrison A, Christopher M (2001) Measuring agile capabilities in the supply chain. *Int J Oper Prod Manage* 21(1–2):126–147
- Van Oyen MP, Gel EGS, Hopp WJ (2001) Performance opportunity for workforce agility in collaborative and noncollaborative work systems. *IIE Trans* 33(9):761–777
- Varadarajan PR, Cunningham WH (1995) Strategic alliances: a synthesis of conceptual foundations. *J Acad Mark Sci* 23(4):282
- Varadarajan PR, Jayachandran S (1999) Marketing strategy: an assessment of the state of the field and outlook. *J Acad Mark Sci* 27(2):120–143
- Vargo SL, Lusch RF (2004) Evolving to a new dominant logic for marketing. *J Mark* 68(1):1–17
- Vazquez-Bustelo D, Avella L, Fernandez E (2007) Agility drivers, enablers and outcomes. *Int J Oper Prod Manage* 27(12):1303–1332
- Venkatraman N, Ramanujam V (1986) Measurement of business performance in strategy research: a comparison of approaches. *Acad Manage Rev* 11(4):801–814
- Venkatraman N, Ramanujam V (1987) Measurement of business economic performance: an examination of method convergence. *J Manag* 13(1):109–122
- Verona G, Bocconi U (1999) A resource-based view of product development. *Acad Manage Rev* 24(1):132–142
- Verona G, Ravasi D (2003) Unbundling dynamic capabilities: an exploratory study of continuous product innovation. *Ind Corp Change* 12(3):577–606
- Vokuika RJ, Flidner G (1998) The journey toward agility. *Ind Manage Data Syst* 4(1):165–171
- Voola R, O'Cass A (2010) Implementing competitive strategies: the role of responsive and proactive market orientations. *Eur J Mark* 44(1/2):245–266
- Vorhies DW (1998) An investigation of the factors leading to the development of marketing capabilities and organizational effectiveness. *J Strateg Mark* 6(1):3–23
- Vorhies DW, Harker M (2000) The capabilities and performance advantages of market-driven firms: an empirical investigation. *Aust J Manage* 25(2):145–171
- Vorhies DW, Morgan NA (2005) Benchmarking marketing capabilities for sustainable competitive advantage. *J Mark* 68(1):80–94

- Vorhies DW, Harker M, Rao CP (1999) The capabilities and performance advantages of market-driven firms. *Eur J Mark* 33(11/12):1171–1202
- Voss KE, Johnson JL, Cullen JB, Sakano T, Takenouchi H (2006) Relational exchange in US-Japanese marketing strategic alliances. *Int Mark Rev* 23(6):610–635
- Wadhwa S, Rao KS (2003) Enterprise modeling of supply chains involving multiple entity flows; role of flexibility in enhancing lead time performance. *SIC J* 12(1):5–20
- Walsh JP (1995) Managerial and organization cognition: notes from a trip down memory lane. *Org Sci* 6(1):280–321
- Walter A, Auer M, Ritter T (2006) The impact of network capabilities and entrepreneurial orientation on university spin-off performance. *J Bus Ventur* 21(4):541–567
- Wang CL (2007) Guanxi vs. relationship marketing: exploring underlying differences. *Ind Mark Manage* 36(1):81–86
- Wang CL, Ahmed PK (2007) Dynamic capabilities: a review and research agenda. *Int J Manage Rev* 9(1):31–51
- Wang Y, Xiang Z (2007) Toward a theoretical framework of collaborative destination marketing. *J Travel Res* 46(1):75–85
- Wang Y, Lo H, Yang Y (2004) The constituents of core competencies and firm performance: evidence from high-technology firms in China. *J Eng Technol Manage* 21(3):249–280
- Wang Y, Kandampully JA, Lo H, Shi G (2006) The role of brand equity and corporate reputation in CRM: a Chinese study. *Corp Reput Rev* 9(3):179–197
- Wartick SL (2002) Measuring corporate reputation. *Bus Soc* 41(4):371–393
- Weerawardena J (2003a) Exploring the role of market learning capability in competitive strategy. *Eur J Mark* 37(3/4):407–429
- Weerawardena J (2003b) The role of marketing capability in innovation-based competitive strategy. *J Strateg Mark* 11(1):15–35
- Weitz BA, Jap SD (1995) Relationship marketing and distribution channels. *J Acad Mark Sci* 23(4):305–320
- Wensley R (1999) Product strategies, managerial comprehension, and organizational performance. *Oxf Rev Econ Policy* 15(1):33–42
- Wernerfelt B (1984) The resource-based view of the firm. *Strateg Manage J* 5(2):171–180
- White S, Siu-Yun Lui S (2005) Distinguishing costs of cooperation and control in alliances. *Strateg Manage J* 26(10):913–932
- Wiggins RR, Ruefli TW (2002) Competitive advantage: temporal dynamics and the incidence and persistence of superior economic performance. *Org Sci* 13(1):82–105
- Wilkinson IF (2008) Business relating business: managing organisational relations and networks. Edward Elgar, Cheltenham
- Wilkinson IF, Young L (2002) On cooperating: firms, relations and networks. *J Bus Res* 55(1):123–132
- Williamson OE (1999) Strategy research: governance and competence perspectives. *Strateg Manage J* 20(12):1087–1108
- Wilmot WW, Hocker JL (2001) Interpersonal conflict, 6th edn. McGraw-Hill, New York
- Wilson DT (1995) An integrated model of buyer-seller relationships. *J Acad Mark Sci* 23(4):335–345
- Winter SG (2003) Understanding dynamic capabilities. *Strateg Manage J* 24(10):991–995
- Woiceshyn J, Daellenbach U (2005) Integrative capability and technology adoption: evidence from oil firms. *Ind Corp Change* 14(2):307–342
- Wong YH, Chen YK (1999) Relationship marketing in China: guanxi, favouritism and adaptation. *J Bus Ethics* 22(1):107–118
- Wright PM, Dunford BB, Snell SA (2001) Human resources and the resource based view of the firm. *J Manage* 27(6):701–722
- Wu L (2010) Applicability of the resource-based and dynamic-capability views under environmental volatility. *J Bus Res* 63(1):27–31
- Wu F, Cavusgil ST (2006) Organizational learning, commitment, and joint value creation in inter-firm relationship. *J Bus Res* 59(1):81–89
- Wu W, Leung A (2005) Does a micro-macro link exist between managerial value of reciprocity, social capital and firm performance? The case of SMEs in China. *Asia Pac J Manage* 22(4):445–463

- Xin KR, Pearce JL (1996) Guanxi: connections as substitutes for formal institutional support. *Acad Manage J* 39(6):1641–1658
- Yang YS, Leone RP, Alden DI (1992) A market expansion ability approach to identify potential exporters. *J Mark* 56(1):84–96
- Yeoh P-L, Roth K (1999) An empirical analysis of sustained advantage in the U.S. pharmaceutical industry: impact of firm resources and capabilities. *Strateg Manage J* 20(7):637–653
- Yeung IYM, Tung RL (1996) Achieving business success in Confucian societies: the importance of guanxi (connections). *Org Dyn* 25(2):54–65
- Youndt MA, Shell SA, Dean JW, Lepak DP (1996) Human resource management, manufacturing strategy, and firm performance. *Acad Manage J* 39(4):836–866
- Youssef MA (1992) Agile manufacturing: a necessary condition for competing in global markets. *Ind Eng* 24:18–20
- Yusuf YY, Adeleye EO (2002) A comparative study of lean and agile manufacturing with a related survey of current practices in the UK. *Int J Prod Res* 40(17):4545–4562
- Yusuf YY, Sarhadi M, Gunasekaran A (1999) Agile manufacturing: the drivers, concepts and attributes. *Int J Prod Econ* 62(1/2):33–43
- Zaheer A, McEvily B, Perrone V (1998) Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance. *Org Sci* 9(2):141–159
- Zahra SA, George G (2002) Absorptive capacity: a review, reconceptualization, and extension. *Acad Manage Rev* 27(2):185–203
- Zahra SA, Nielsen AP (2002) Sources of capabilities, integration and technology commercialization. *Strateg Manage J* 23(5):377–398
- Zahra SA, Ireland RD, Hitt MA (2000) International expansion by new venture firms: international diversity, mode of market entry, technological learning, and performance. *Acad Manage J* 43(5):925–950
- Zahra SA, Sapienza HJ, Davidsson P (2006) Entrepreneurship and dynamic capabilities: a review, model and research agenda. *J Manage Stud* 43(4):917–955
- Zairi M (1992) TQM-based performance measurement–practice guidelines. Technical Communications, Hertfordshire
- Zhang S, Li X (2008) Managerial ties, firm resources, and performance of cluster firms. *Asia Pac J Manage* 25(4):615–633
- Zhang Z, Sharifi H (2000) A methodology for achieving agility in manufacturing organizations. *Int J Oper Prod Manage* 20(4):496–512
- Zhang Z, Sharifi H (2007) Towards theory building in agile manufacturing strategy—a taxonomical approach. *IEEE Trans Eng Manage* 54(2):351–370
- Zhang Y, Zhang Z (2006) Guanxi and organizational dynamics in China: a link between individual and organizational levels. *J Bus Ethics* 67(5):375–392
- Zhang Q, Vonderembse MA, Lim J (2003) Manufacturing flexibility: defining and analyzing relationships among competence, capability, and customer satisfaction. *J Oper Manage* 21(2):173–191
- Zhou KZ, Li CB (2010) How strategic orientations influence the building of dynamic capability in emerging economies. *J Bus Res* 63(3):224–231
- Zhou KZ, Tse DK, Li JJ (2006) Organizational changes in emerging economies: drivers and consequences. *J Int Bus Stud* 37(2):248–263
- Zhou KZ, Brown JR, Dev CS (2009) Market orientation, competitive advantage, and performance: a demand-based perspective. *J Bus Res* 62:1063–1070
- Zollo M, Singh H (1998) The impact of knowledge codification, experience trajectories and integration strategies on the performance of corporate acquisitions. Paper presented at the Academy of Management Best Paper proceedings, San Diego, CA
- Zollo M, Winter SG (2002) Deliberate learning and the evolution of dynamic capabilities. *Org Sci* 13(3):339–351
- Zott C (2003) Dynamic capabilities and the emergence of intraindustry differential firm performance. *Strateg Manage J* 24(2):97–125
- Zou S, Fang E, Zhao S (2003) The effect of export marketing capabilities on export performance: an investigation of Chinese exporters. *J Int Mark* 11(4):32–55

Business Partnerships and Organizational Performance
The Role of Resources and Capabilities

Jiang, W.

2014, XXVI, 355 p. 37 illus., 36 illus. in color., Hardcover

ISBN: 978-3-642-53988-6